CONNEXIONS

MATHEMATICS

I

Mathematics Grade 1

By:
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Chapter 1

Term 1

1.1 Counting[1]

1.1.1 MATHEMATICS

1.1.2 Number Fun

1.1.3 EDUCATOR SECTION

1.1.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. Explore education and career opportunities; and
12. Develop entrepreneurial opportunities.

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[1] This content is available online at <http://cnx.org/content/m22347/1.1/>.

1.1.5 MODULE 1

Critical and developmental outcomes:	Pages:
CO 1	4, 5, 8, 15
CO 3	2, 3, 6, 7, 9, 10, 14, 18, 19
CO 4	4, 21
CO 7	11, 12, 13, 16, 17, 20
CO 8	16, 22

Table 1.1

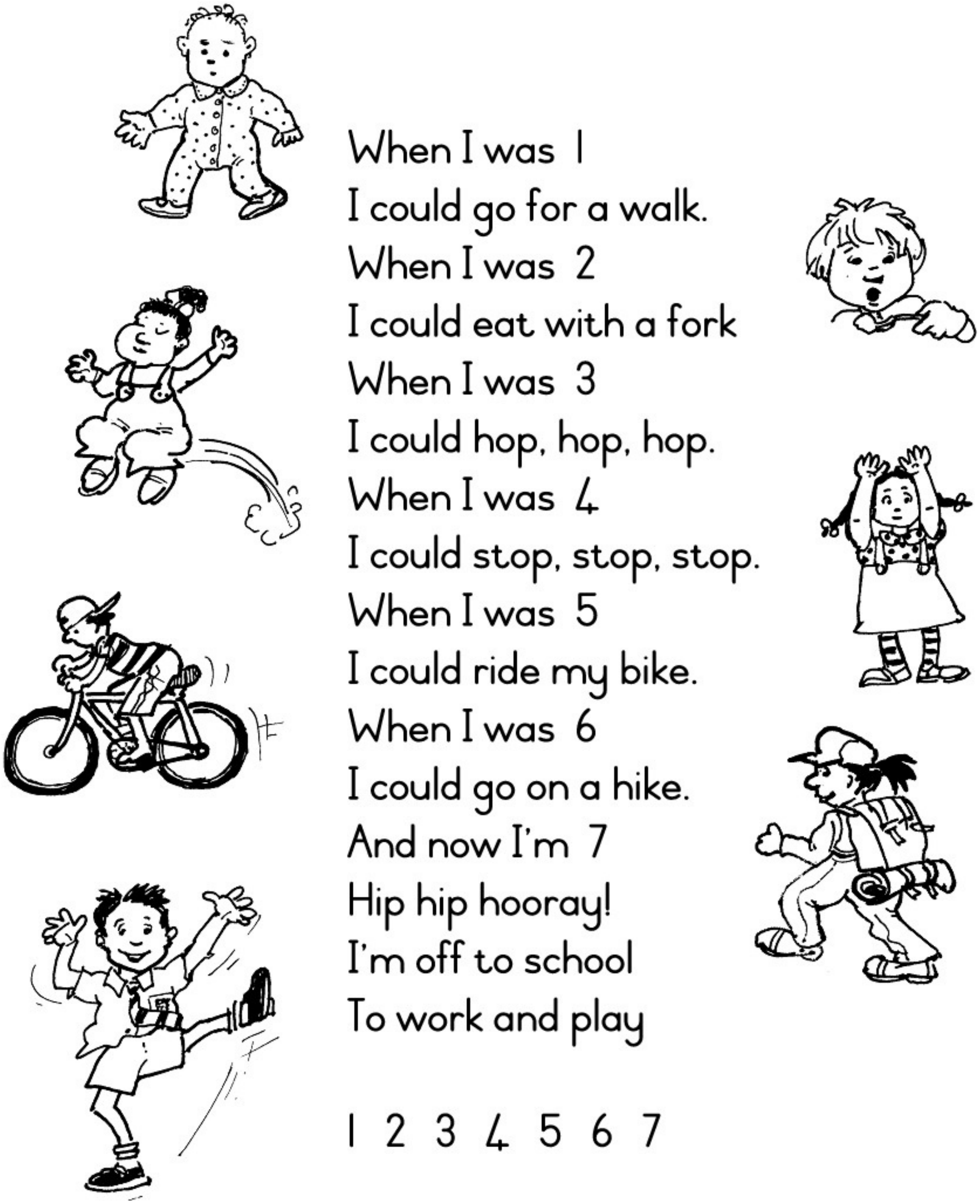
- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

1.1.6 LEANER SECTION

1.1.7 Content

1.1.7.1 ACTIVITY: Counting [LO 1.4, LO 1.1]

- A counting rhyme:



When I was 1
I could go for a walk.
When I was 2
I could eat with a fork
When I was 3
I could hop, hop, hop.
When I was 4
I could stop, stop, stop.
When I was 5
I could ride my bike.
When I was 6
I could go on a hike.
And now I'm 7
Hip hip hooray!
I'm off to school
To work and play

1 2 3 4 5 6 7

Figure 1.1

LO 1.4	

Table 1.2

- I have (Count them):

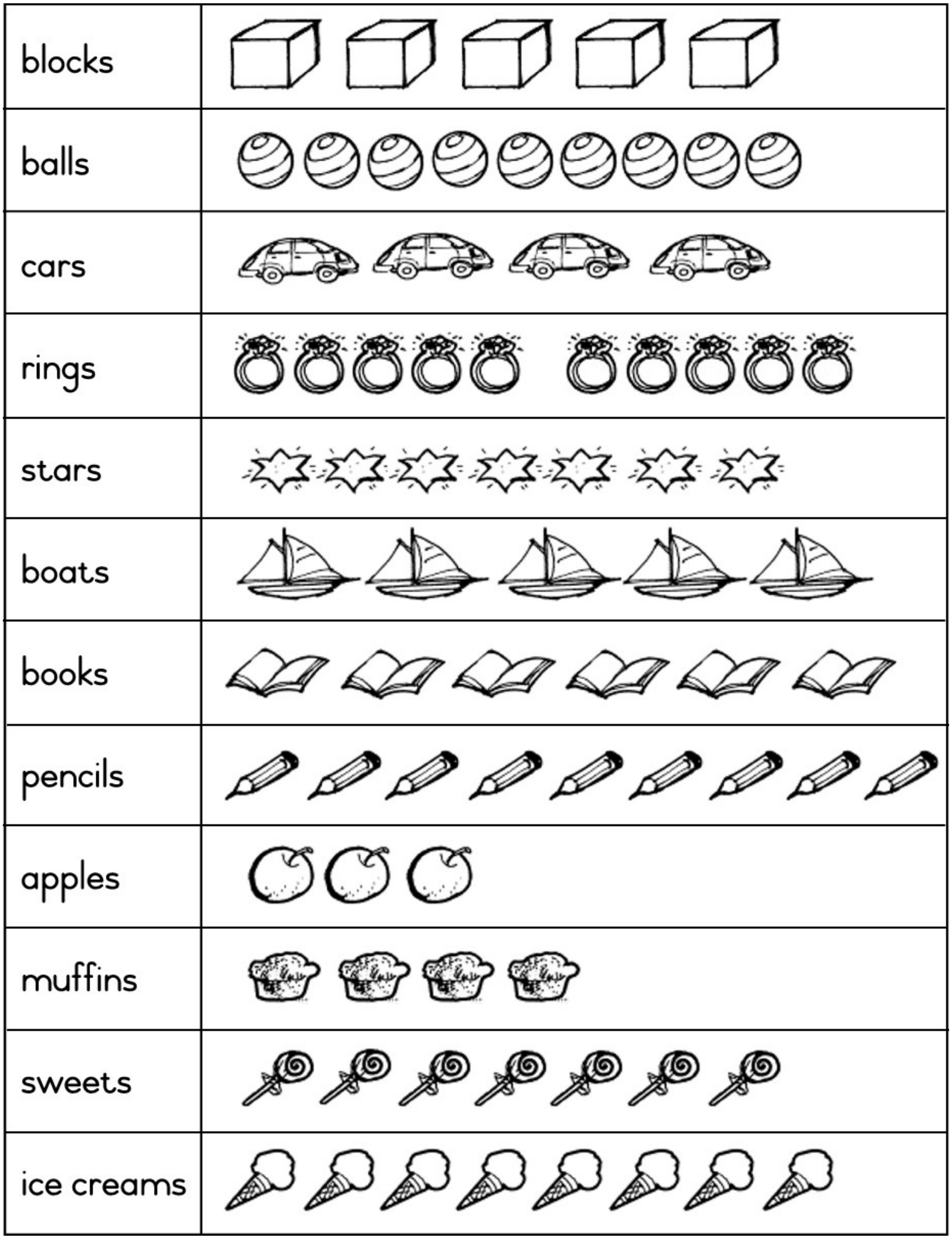

blocks
balls
cars
rings
stars
boats
books
pencils
apples
muffins
sweets
ice creams

Figure 1.2

LO 1.1	

Table 1.3

1.1.8 Assessment

Learning Outcome 1:The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers.

1.2 Space orientation[2]

1.2.1 MATHEMATICS

1.2.2 Number Fun

1.2.3 EDUCATOR SECTION

1.2.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. Explore education and career opportunities; and
12. Develop entrepreneurial opportunities.

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[2] This content is available online at <http://cnx.org/content/m22354/1.1/>.

1.2.5 MODULE 1

Critical and developmental outcomes:	Pages:
CO 1	4, 5, 8, 15
CO 3	2, 3, 6, 7, 9, 10, 14, 18, 19
CO 4	4, 21
CO 7	11, 12, 13, 16, 17, 20
CO 8	16, 22

Table 1.4

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

1.2.6 LEANER SECTION

1.2.7 Content

1.2.7.1 ACTIVITY: Space orientation [LO 3.5]

- What do we know? Draw a `[U+25CB]`

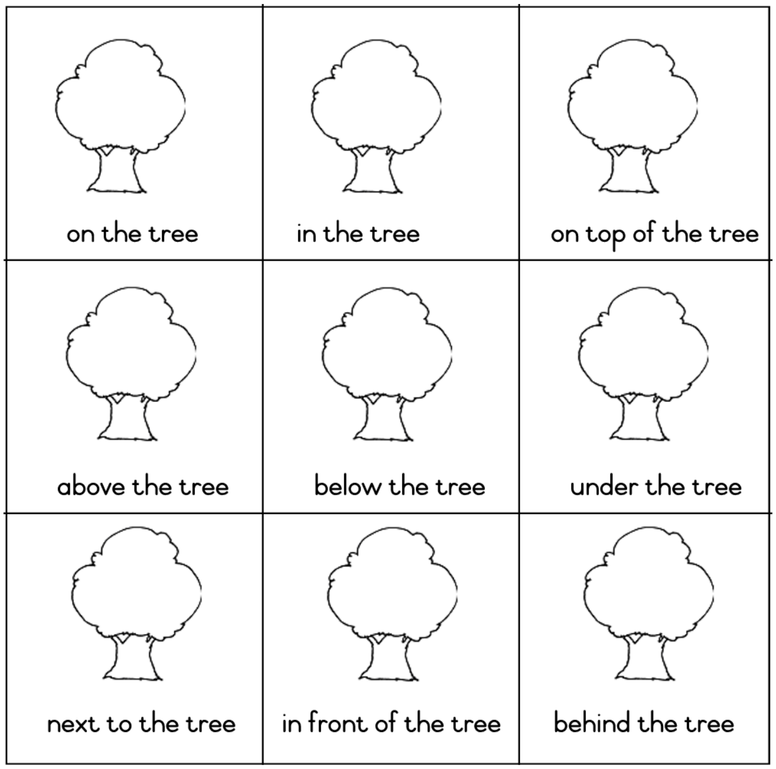

Figure 1.3

- My brother and I have the same books. Draw my brother's book.

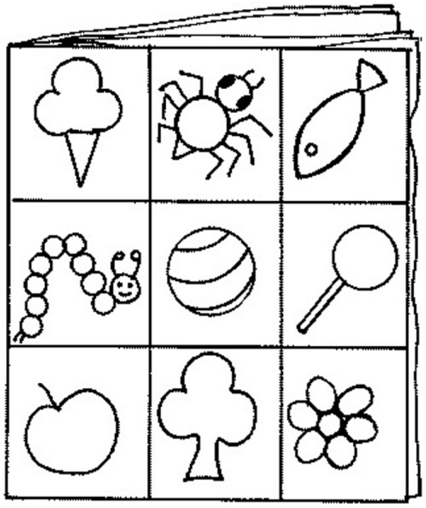

Figure 1.4

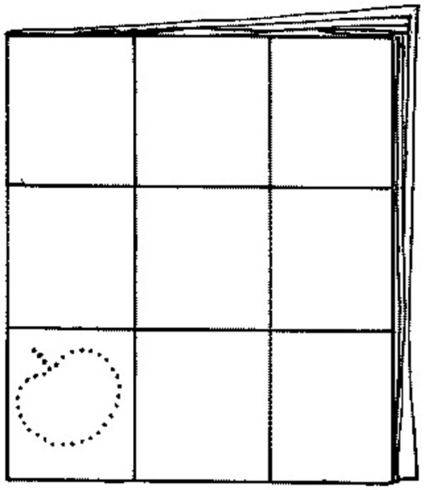

Figure 1.5

We draw the same pictures.

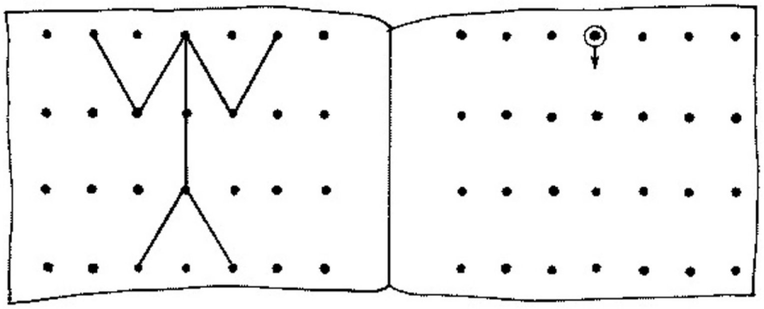

Figure 1.6

- Draw the same shapes. Colour.

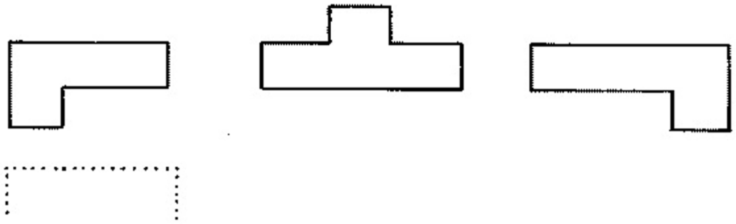

Figure 1.7

LO 3.5	

Table 1.5

1.2.8 Assessment

Learning Outcome 3:The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.5: We know this when the learner describes one three-dimensional object in relation to another (e.g. 'in front' or 'behind').

1.3 Recognizing differences[3]

1.3.1 MATHEMATICS

1.3.2 Number Fun

1.3.3 EDUCATOR SECTION

1.3.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
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3. organise and manage themselves and their activities responsibly and effectively;
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6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
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10. be culturally and aesthetically sensitive across a range of social contexts;
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12. Develop entrepreneurial opportunities.

1.3.5 MODULE 1

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Table 1.6

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

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[3] This content is available online at <http://cnx.org/content/m22397/1.1/>.

1.3.6 LEANER SECTION

1.3.7 Content

1.3.7.1 ACTIVITY: Recognizing differences [LO 1.4, LO 1.1]

Let's talk about…

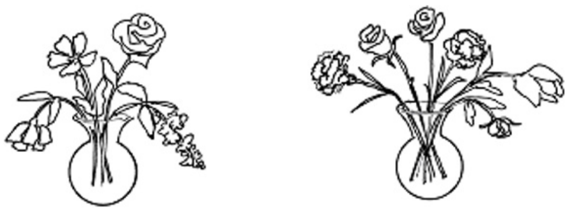

Figure 1.8

- Why do we say these are the same? What are they?

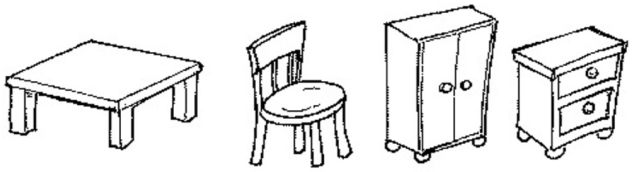

Figure 1.9

- Why are these the same?
- Are these all the same? Why not?
- Draw a circle around the one object that is different.

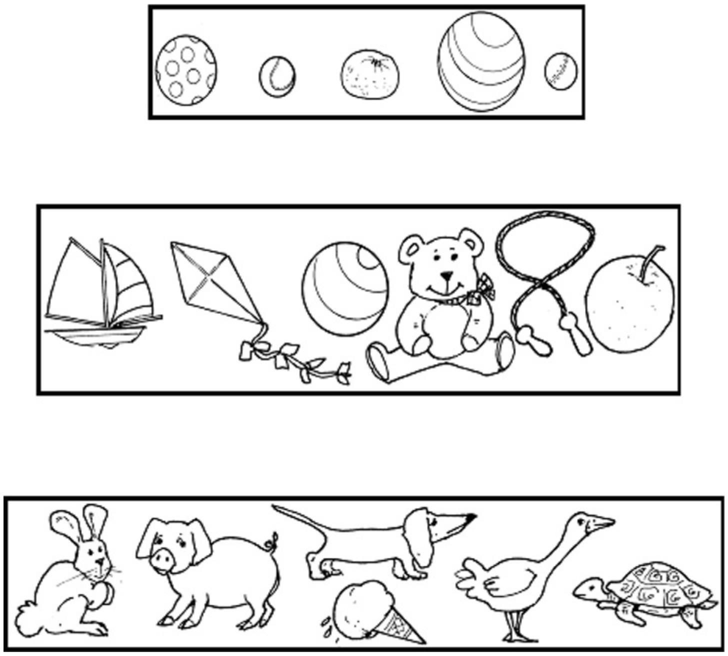

Figure 1.10

LO 5.3	

Table 1.7

- I know my colours:

red
blue
yellow
green

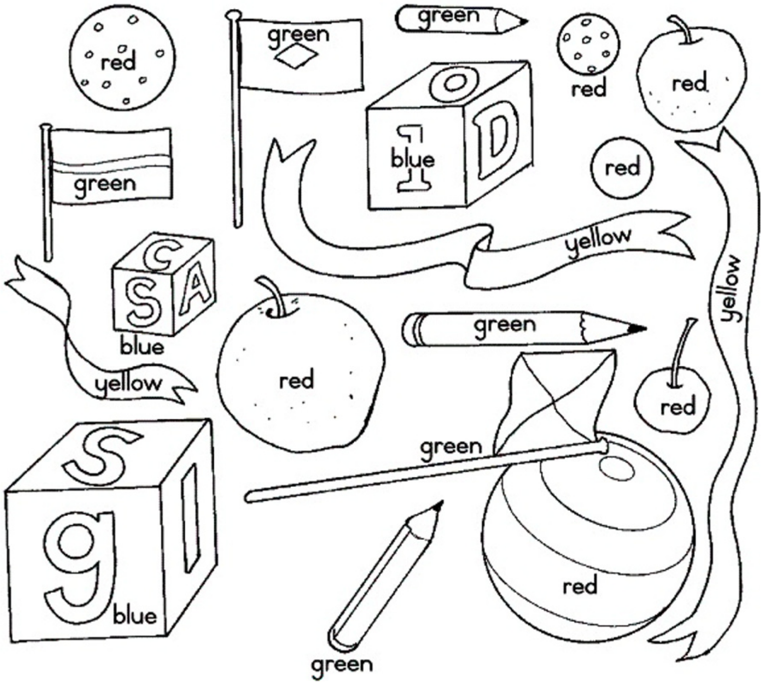

Figure 1.11

- Draw something:

big
small
long
short

LO 4.6		LO 5.2	

Table 1.8

Look at the previous page. It is a picture of all the stuff in my untidy cupboard. Mummy said, “Tidy your cupboard."

- I will sort my things into colours. Talk about “same" and “different". Give reasons.

- Red things -draw them

- Blue things - draw them

- Green things - draw them

- Yellow things -draw them

LO 5.2	

Table 1.9

- Draw some of the things in the cupboard . . .

Big
  Bigger
  Biggest
  Small
  Smaller
  Smallest
  Long
  Longer
  Longest
  Short
  Shorter
  Shortest

LO 4.5	

Table 1.10

- Let's talk about…

how big they are

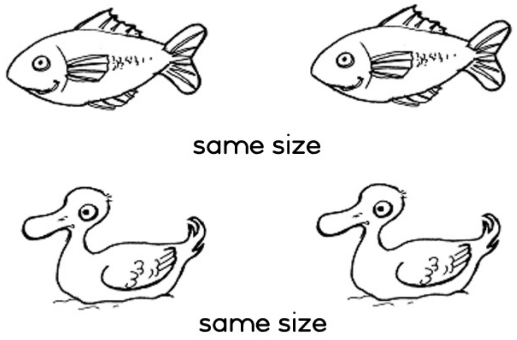

Figure 1.12

- Colour the ones that are of the same size

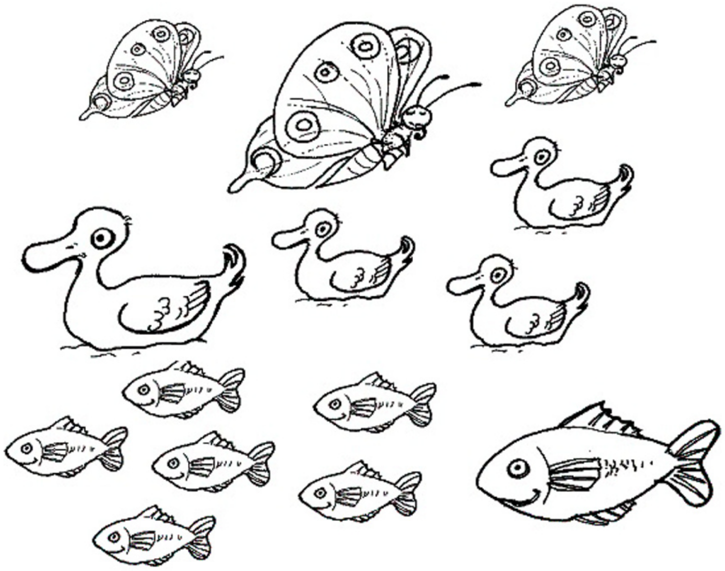

Figure 1.13

LO 4.5	

Table 1.11

1.3.8 Assessment

Learning Outcome 4:**MEASUREMENT:**The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Assessment Standard 4.6: We know this when the learner (additional) understands language:

4.6.1 size;

4.6.2 length.

Learning Outcome 5:**DATA HANDLING:**The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.');

Assessment Standard 5.3: We know this when the learner gives reasons for collections being grouped in particular ways.

1.4 Completing patterns[4]

1.4.1 MATHEMATICS

1.4.2 Number Fun

1.4.3 EDUCATOR SECTION

1.4.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
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1.4.5 MODULE 1

Critical and developmental outcomes:	Pages:
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CO 8	16, 22

Table 1.12

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[4] This content is available online at <http://cnx.org/content/m22398/1.1/>.

1.4.6 LEANER SECTION

1.4.7 Content

1.4.7.1 ACTIVITY: Completing patterns [LO 3.2]

- Complete the patterns.

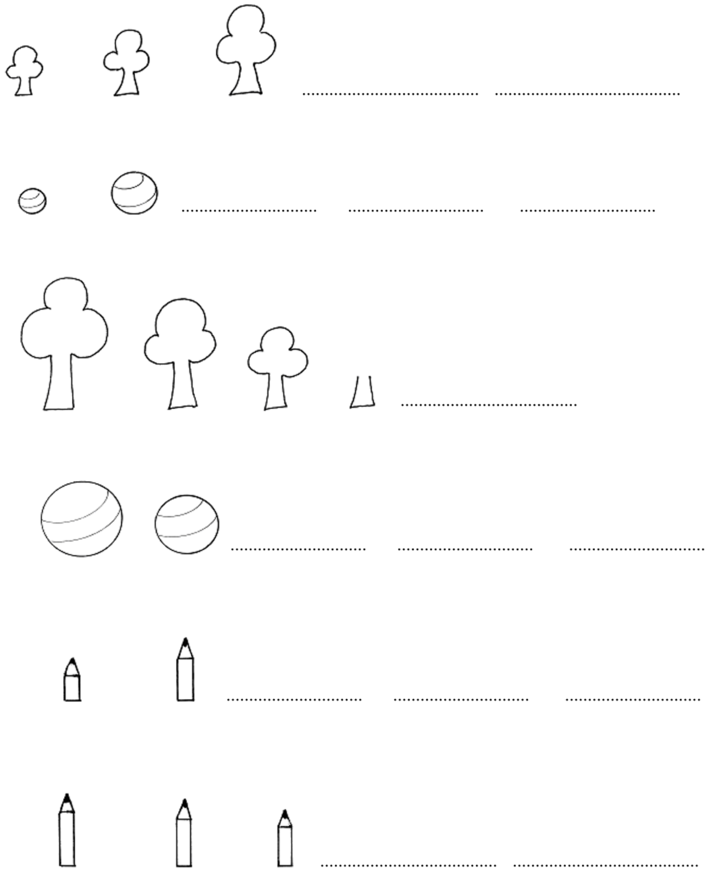

Figure 1.14

LO 3.2

LO 3.2	

Table 1.13

1.4.8 Assessment

Learning Outcome 3:The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.2: We know this when the learner describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to:

3.2.1 size;
3.2.2 objects that roll or slide;
3.2.3 shapes that have straight or round edges.

1.5 Many and few[5]

1.5.1 MATHEMATICS

1.5.2 Number Fun

1.5.3 EDUCATOR SECTION

1.5.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
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1.5.5 MODULE 1

Critical and developmental outcomes:	Pages:
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CO 3	2, 3, 6, 7, 9, 10, 14, 18, 19
CO 4	4, 21
CO 7	11, 12, 13, 16, 17, 20
CO 8	16, 22

Table 1.14

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[5] This content is available online at <http://cnx.org/content/m22399/1.1/>.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

1.5.6 LEANER SECTION

1.5.7 Content

1.5.7.1 ACTIVITY: Many and few [LO 5.2, LO 1.9]

- I go for a walk. I see….

Figure 1.15

- Draw

Figure 1.16

many

Figure 1.17

a few

Figure 1.18

many

Figure 1.19

a few

Figure 1.20

many apples

Figure 1.21

a few apples

LO 5.2	

Table 1.15

- At my party there were …

more boys and fewer girls

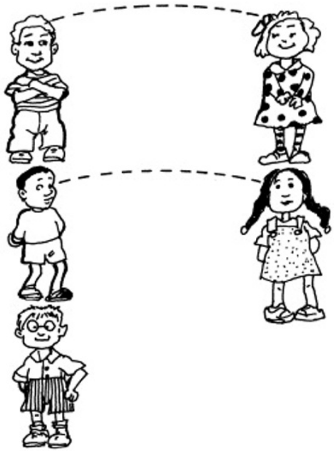


Figure 1.22

I matched them.

- Match the rabbits to the carrots:

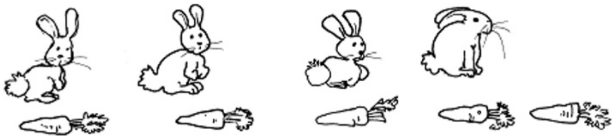


Figure 1.23

more or fewer?

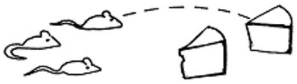
- 

Figure 1.24

Match:

- Draw the set with more

- Match

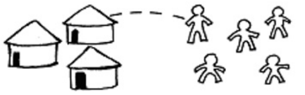


Figure 1.25

- Draw the set with more

LO 1.9	

Table 1.16

- Draw a group with more / fewer objects.

fewer

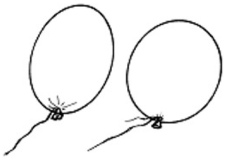


Figure 1.26

more
fewer

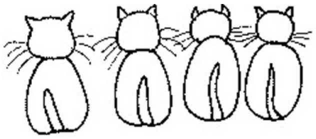


Figure 1.27

more
fewer

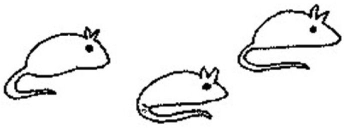


Figure 1.28

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more

LO 1.9	

Table 1.17

1.5.8 Assessment

Learning Outcome 5:The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.')

Learning Outcome 1:The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.9: We know this when the learner uses the following techniques:

1.9.1 building up and breaking down numbers;
1.9.2 doubling and halving;
1.9.3 using concrete apparatus (e.g. counters);
1.9.4 number-lines.

1.6 The same number[6]

1.6.1 MATHEMATICS

1.6.2 Number Fun

1.6.3 EDUCATOR SECTION

1.6.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

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[6] This content is available online at <http://cnx.org/content/m22401/1.1/>.

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
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1.6.5 MODULE 1

Critical and developmental outcomes:	Pages:
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CO 4	4, 21
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Table 1.18

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

1.6.6 LEANER SECTION

1.6.7 Content

1.6.7.1 ACTIVITY: The same number [LO 1.9, LO 1.4]

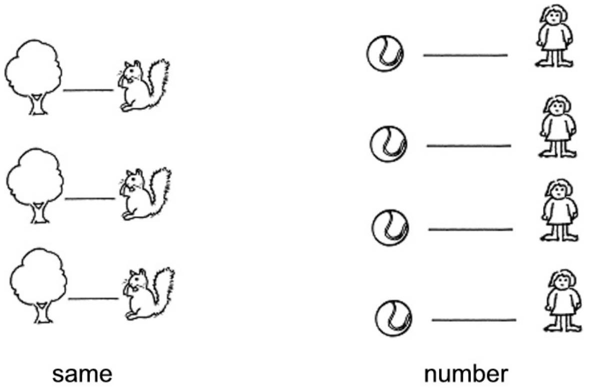

Figure 1.29

Draw the same number of objects. Match them.

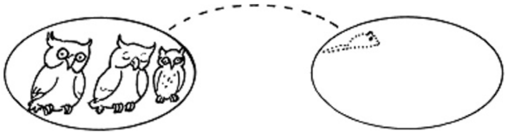

Figure 1.30

Figure 1.31

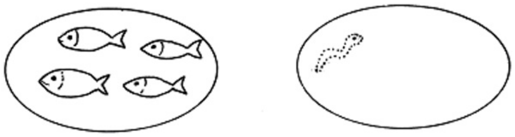

Figure 1.32

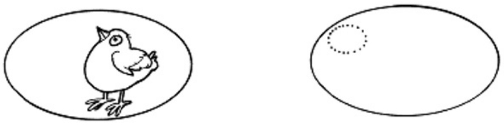

Figure 1.33

LO 1.9	

Table 1.19

A problem to solve.

- How can you change these groups to make them the same number?

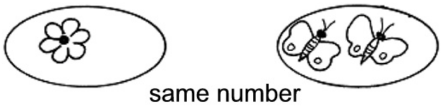

Figure 1.34

or

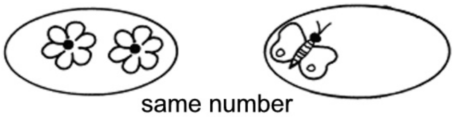

Figure 1.35

- Now solve these problems.

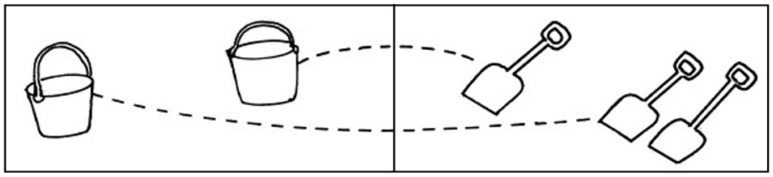

Figure 1.36

same number

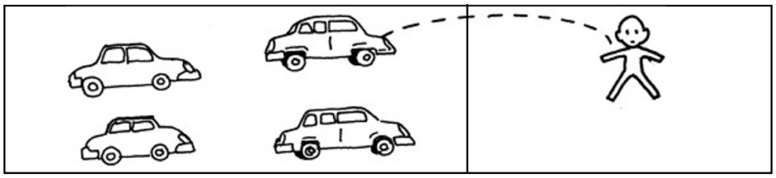

Figure 1.37

same number

- I play marbles with Ron.

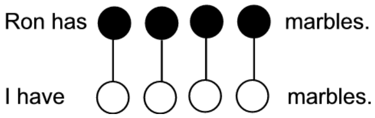

Figure 1.38

We have the .... of marbles.

- Ron gets one more.

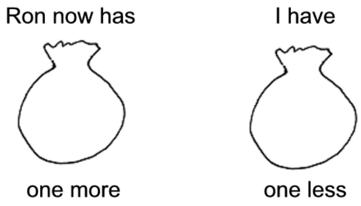

Figure 1.39

- Ron gets one more again.

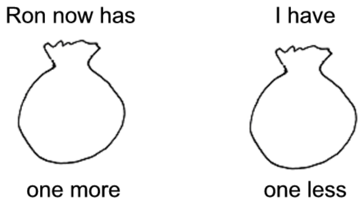

Figure 1.40

LO 1.4	

Table 1.20

1.6.8 Assessment

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers.

Learning Outcome 1:The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Learning Outcome 1:The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.9: We know this when the learner uses the following techniques:

1.9.1 building up and breaking down numbers;
1.9.2 doubling and halving;
1.9.3 using concrete apparatus (e.g. counters);
1.9.4 number-lines.

1.7 Counting objects[7]

1.7.1 MATHEMATICS

1.7.2 Number Fun

1.7.3 EDUCATOR SECTION

1.7.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. Explore education and career opportunities; and
12. Develop entrepreneurial opportunities.

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[7] This content is available online at <http://cnx.org/content/m22410/1.1/>.

1.7.5 MODULE 1

Critical and developmental outcomes:	Pages:
CO 1	4, 5, 8, 15
CO 3	2, 3, 6, 7, 9, 10, 14, 18, 19
CO 4	4, 21
CO 7	11, 12, 13, 16, 17, 20
CO 8	16, 22

Table 1.21

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

1.7.6 LEANER SECTION

1.7.7 Content

1.7.7.1 ACTIVITY: Counting objects [LO 1.1, LO 1.4, LO 1.3]

1.7.7.1.1 A Counting Rhyme

One, two, three
Look at me.
Four, five, six
I build my bricks.
Seven, eight, nine
Soldiers in a line.
And here are ten
Fingers in my den.

- Count. How many...?

red marbles

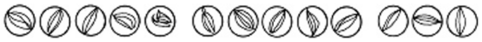

Figure 1.41

blue marbles

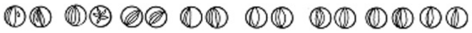

Figure 1.42

green marbles

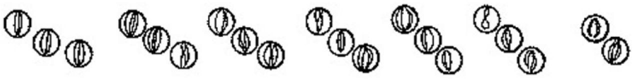

Figure 1.43

yellow marbles

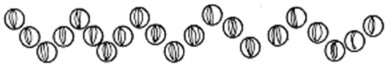

Figure 1.44

LO 1.1	
LO 1.4	

Table 1.22

- Draw one more. Count.

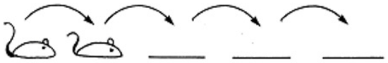

Figure 1.45

mice

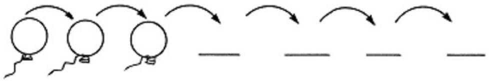

Figure 1.46

balloons

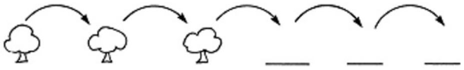

Figure 1.47

trees

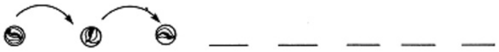

Figure 1.48

marbles

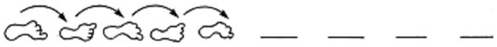

Figure 1.49

steps

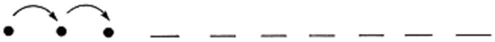

Figure 1.50

dots

- Count their steps.

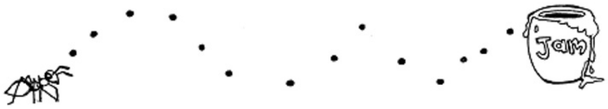

Figure 1.51

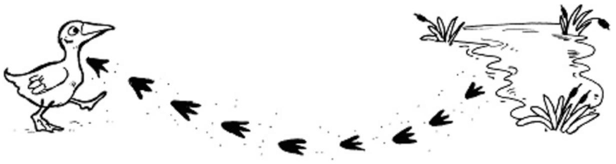

Figure 1.52

LO 1.1	

Table 1.23

- My lunch box

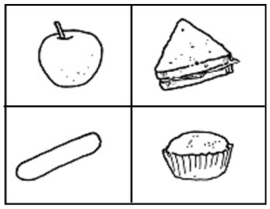

Figure 1.53

- Ron's lunch box

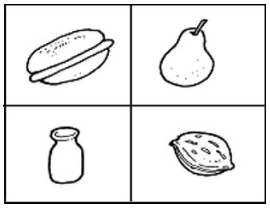

Figure 1.54

- I have...

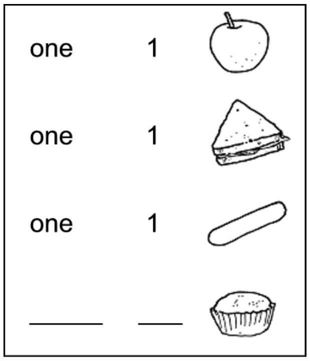

Figure 1.55

- Ron has...

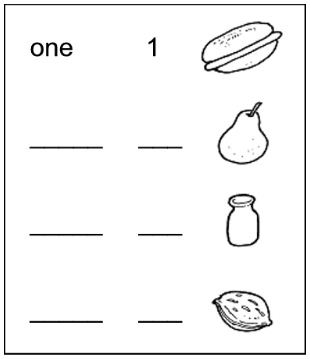

Figure 1.56

- Colour the blocks with one object. Write “1”.

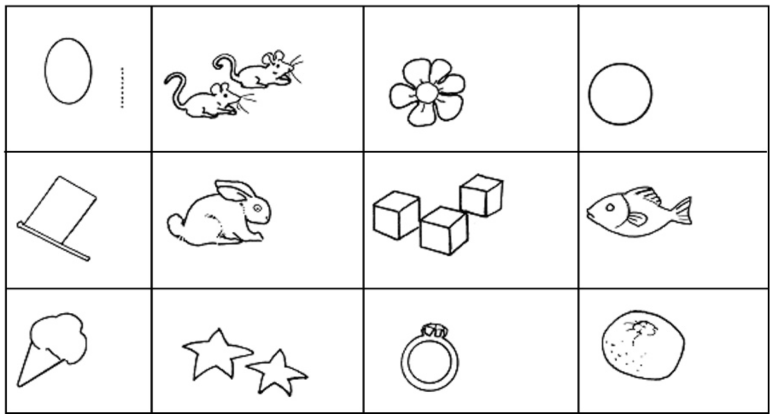

Figure 1.57

LO 1.3	

Table 1.24

Tessa and I go for a walk.

- Tessa’s red apples.

Figure 1.58

- My green apples.

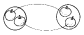

Figure 1.59

We each have two 2 apples.

- Tessa's lunch box

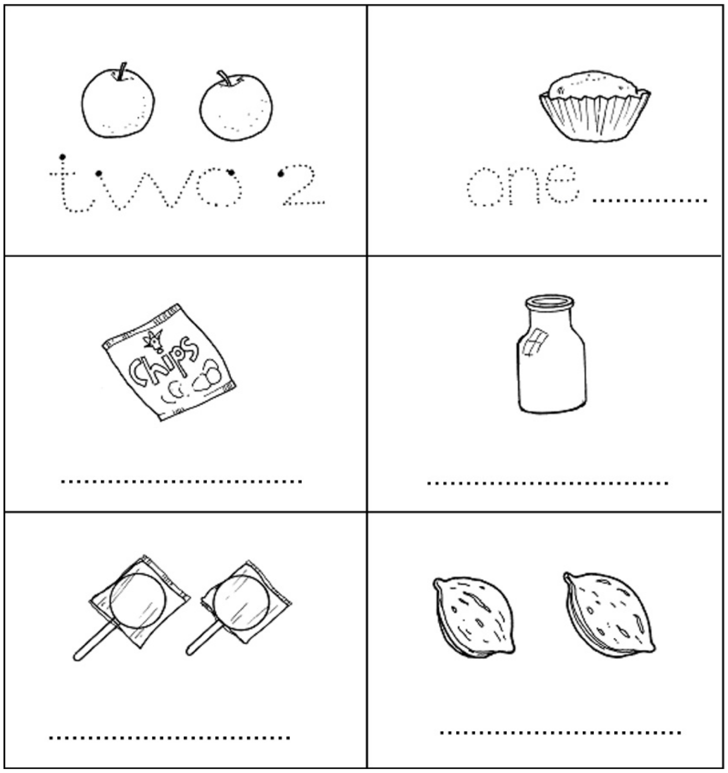

Figure 1.60

LO 1.3	

Table 1.25

Puzzles to build.

- Cut, match and paste.

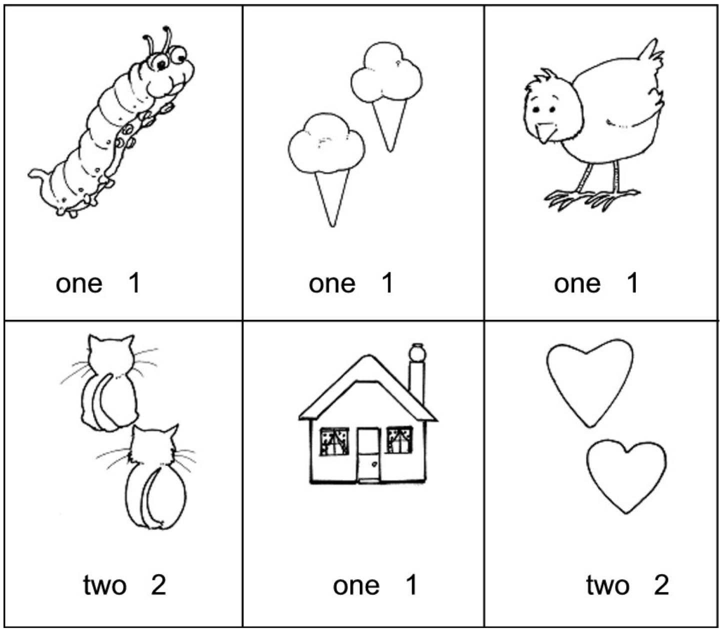

Figure 1.61

LO 1.3	

Table 1.26

1.7.8 Assessment

Learning Outcome 1:The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers.

1.8 Mathematics, Shapes and Patterns[8]

1.8.1 MATHEMATICS

1.8.2 Number Fun

1.8.3 EDUCATOR SECTION

1.8.4 Memorandum

Critical and developmental outcomes:

- The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. Explore education and career opportunities; and
12. Develop entrepreneurial opportunities.

1.8.5 MODULE 1

Critical and developmental outcomes:	Pages:
CO 1	4, 5, 8, 15
CO 3	2, 3, 6, 7, 9, 10, 14, 18, 19
CO 4	4, 21
CO 7	11, 12, 13, 16, 17, 20
CO 8	16, 22

Table 1.27

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

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[8] This content is available online at <http://cnx.org/content/m22442/1.1/>.

1.8.6 LEANER SECTION

1.8.7 Content

1.8.7.1 ACTIVITY: Mathematics, Shapes and Patterns [LO 3.1, LO 2.1, LO 2.2, LO 2.3]

Mathematics and Shapes
Everything has a shape.

- This is the shape of a :

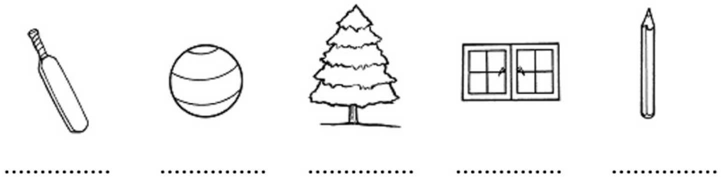

Figure 1.62

- Look at them and draw those that have the shape of a:

square
Rectangle
circle
triangle

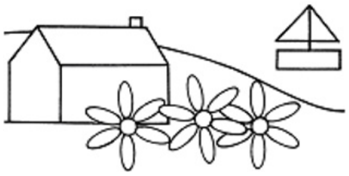

Figure 1.63

I can see a , ..., ..., ...

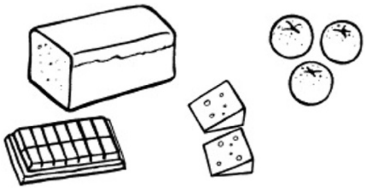

Figure 1.64

I can see a ...., ..., ..., ...

LO 3.1	

Table 1.28

1.8.7.1.1 Mathematics and Patterns

A pattern is made by drawing the same lines or shapes over and over.

Look at the patterns on Sally's skirt.

- Complete the patterns for Sally.

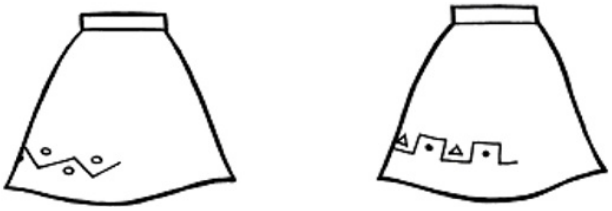

Figure 1.65

- Can you see these patterns? Complete them.

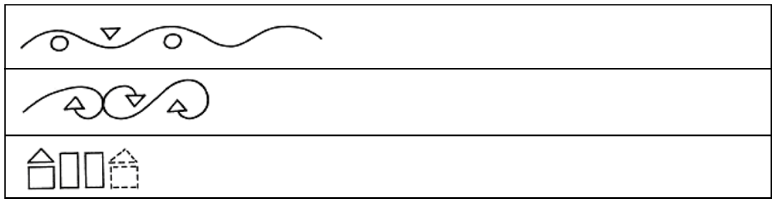

Figure 1.66

- Look for patterns in this number block. Write them.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20									
0	1	....	....	....	....	....	....	....	....
10	11	....	....	....	....	....	....	....	....
20	....	....	....	....	....	....	....	....	....

Table 1.29

LO 2.1		LO 2.2	

Table 1.30

LO 2.1 LO 2.2

- Design your own attractive pattern.

- Play a game. Choose a friend. See who can find the most triangles, squares and rectangles in the pictures. Write down your score.

triangles ....
squares ....
rectangles ....
Who won? ....

LO 2.3		LO 3.1	

Table 1.31

1.8.8 Assessment

Learning Outcome 2:The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.1: We know this when the learner copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Assessment Standard 2.3: We know this when the learner creates own patterns.

Learning Outcome 3:The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures, including:

3.1.1 boxes (prisms) and balls (spheres);

3.1.2 triangles and rectangles;

3.1.3 circles;

1.9 Number Fun - 01[9]

1.9.1 MATHEMATICS

1.9.2 Number Fun

1.9.3 EDUCATOR SECTION

1.9.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;

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[9] This content is available online at <http://cnx.org/content/m31710/1.1/>.

10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

1.9.5 LEARNERS SECTION

1.9.6 Content

- Cut out the three bears on page 2 and paste them here.

Figure 1.67

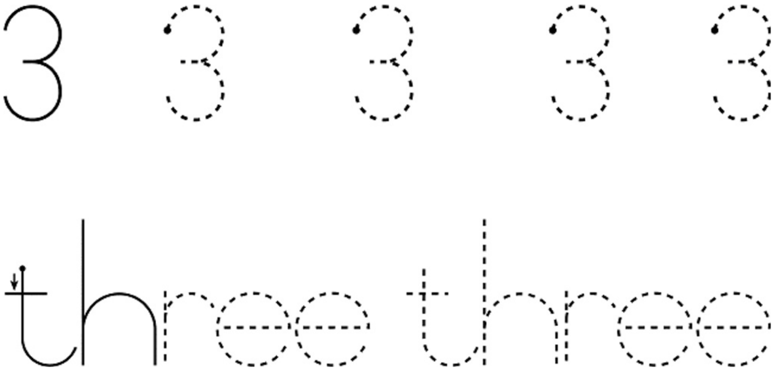

Figure 1.68

LO 1.3	

Table 1.32

- Cut out.

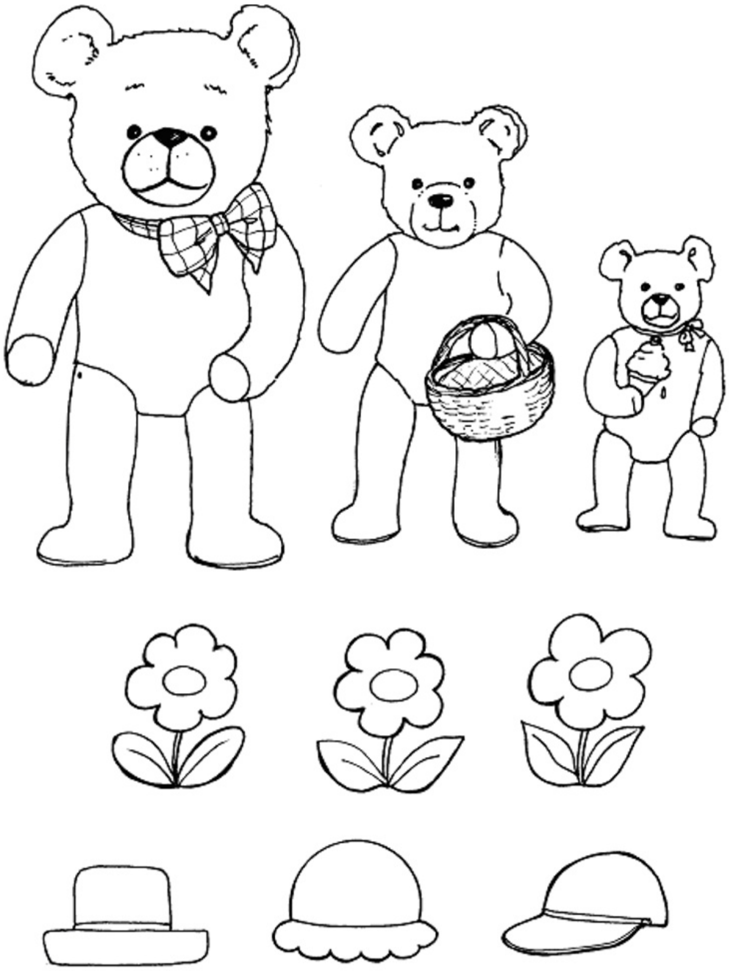

Figure 1.69

LO 1.1	

Table 1.33

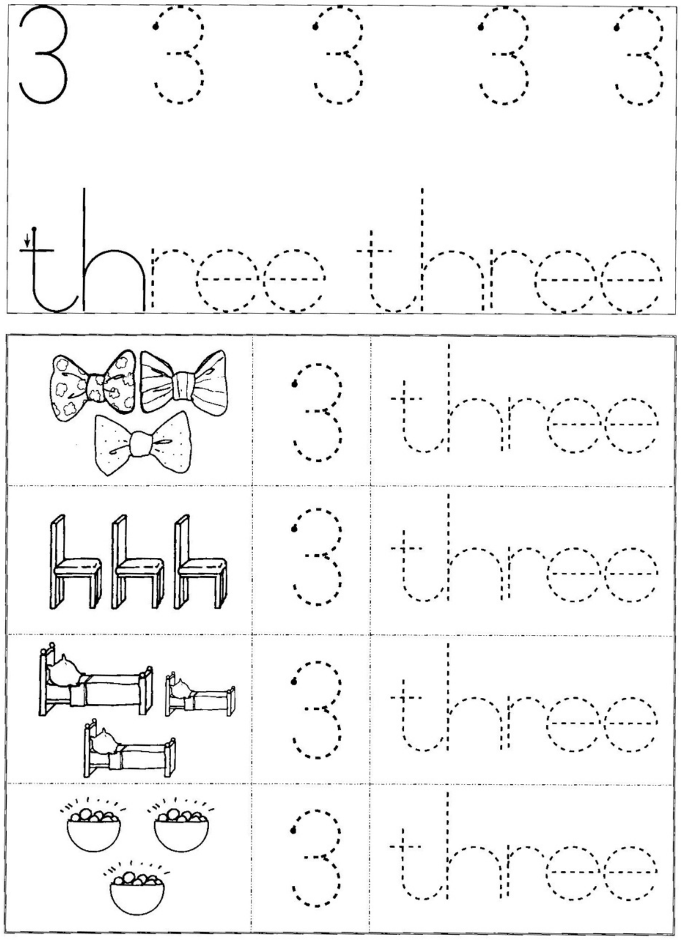

Figure 1.70

LO 1.3	

Table 1.34

- Draw three objects every time.

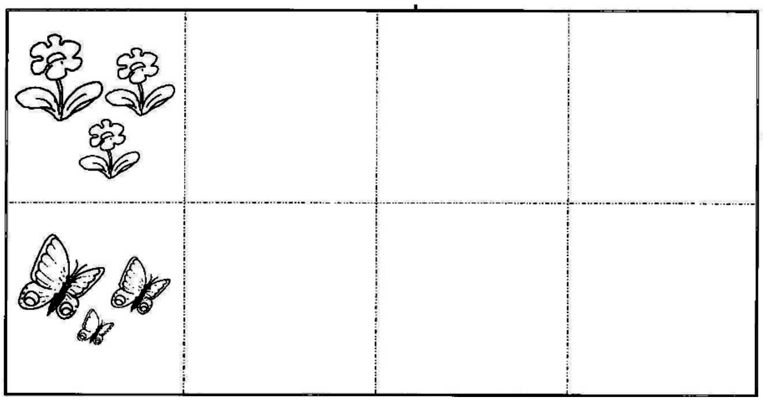

Figure 1.71

- Complete.

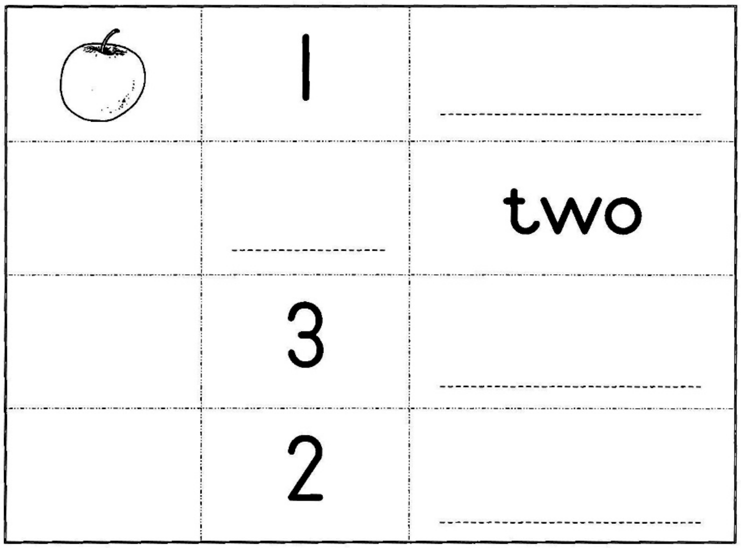

Figure 1.72

LO 1.3	

Table 1.35

- Look at your little bear.

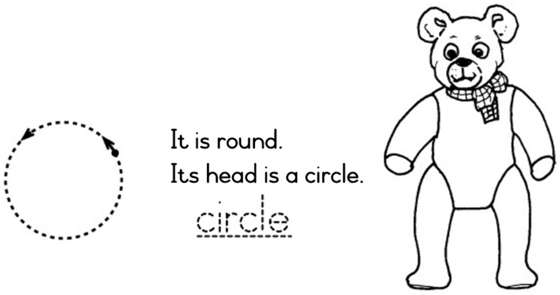
It is round.
Its head is a circle.
circle

Figure 1.73

Draw around its head.

Talk about:
Can it roll? Can it slide? Does it have corners?

- Draw many circles and colour them in.

Figure 1.74

LO 3.1	

Table 1.36

- Look for `[U+F0A1]`'s in magazines and paste them here.

Figure 1.75

- Draw:**many** circles.

Figure 1.76

- Colour them **orange**.
- Draw:**few** circles.
- Colour them **purple**.

Figure 1.77

LO 3.1	

Table 1.37

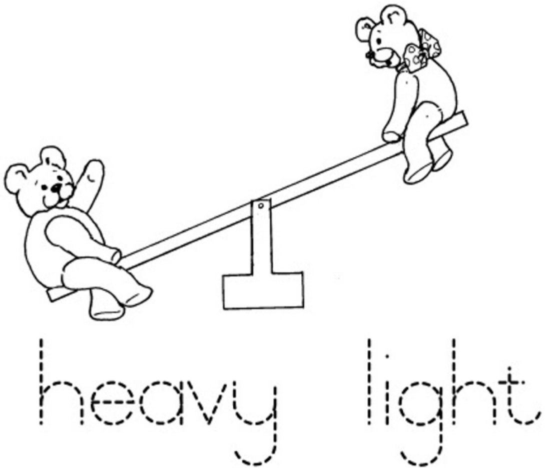

Figure 1.78

- Find a picture of something that is heavy and something that is light.

Figure 1.79

heavy

Figure 1.80

light

LO 4.6	

Table 1.38

- Make the basket heavier.

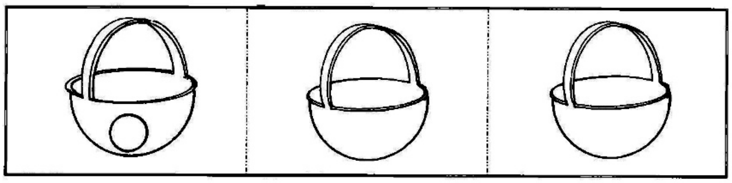

Figure 1.81

- Make the basket lighter.

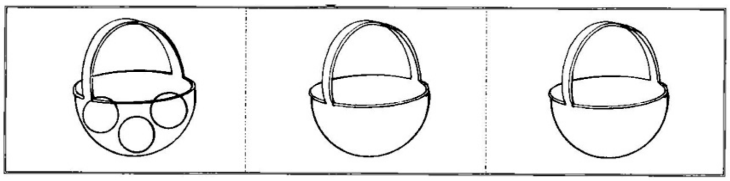

Figure 1.82

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- Does everyone have a hat?

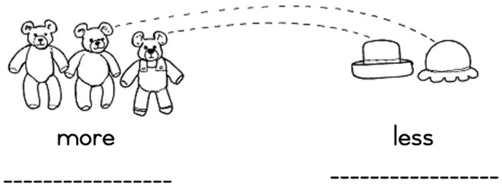

Figure 1.83

- Give everyone a basket.

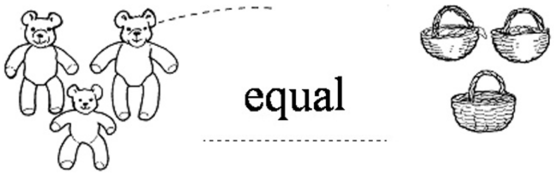

Figure 1.84

LO 4.5	

Table 1.39

1.9.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Assessment Standard 4.6: We know this when the learner understands language.

1.10 Number Fun - 02[10]

1.10.1 MATHEMATICS

1.10.2 Number Fun

1.10.3 EDUCATOR SECTION

1.10.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

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[10] This content is available online at <http://cnx.org/content/m31714/1.1/>.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

1.10.5 LEARNERS SECTION

1.10.6 Content

- A rhyme to learn:

Five little bears
heard a lion roar
one went up too close
and then there were four.
Four little bears
climbed up a tree
one came tumbling down
and there were three.

Three little bears
tried to cook a stew
one cut his finger
and then there were two.
Two little bears
were sitting in the sun
one stayed there far too long
and then there was one.
One little bear
went for a run
he didn't turn back again
and now there are none.
R. Louw

LO 1.2	

Table 1.40

- Count the little bears.

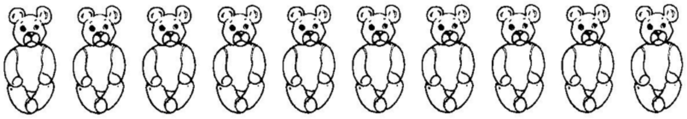
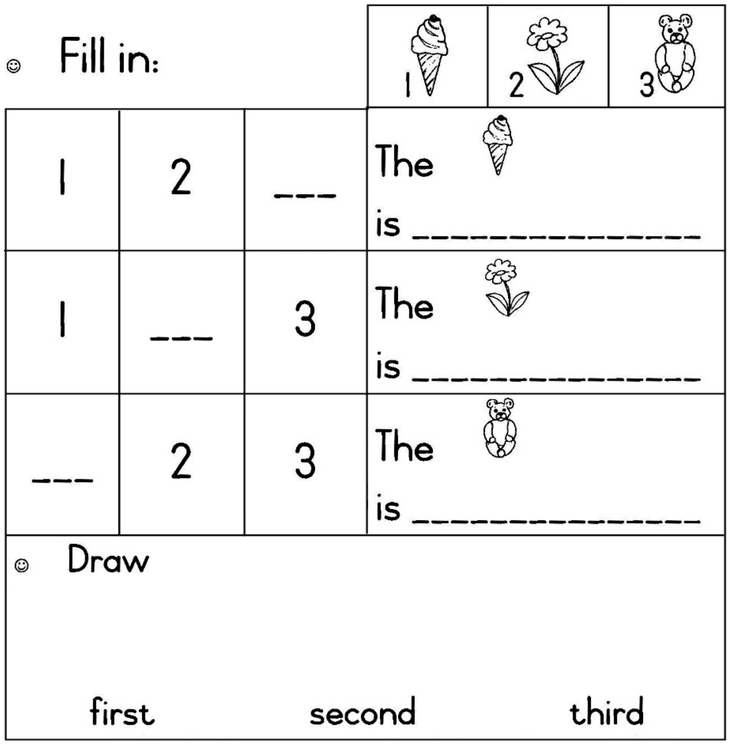


Figure 1.85

- Draw a circle around the **first** and **last** bear.



☺ Fill in:

1 2 3

1	2	___	The is _______________
1	___	3	The is _______________
___	2	3	The is _______________

☺ Draw

first second third

Figure 1.86

LO 1.1		LO 1.3		LO 1.4	

Table 1.41

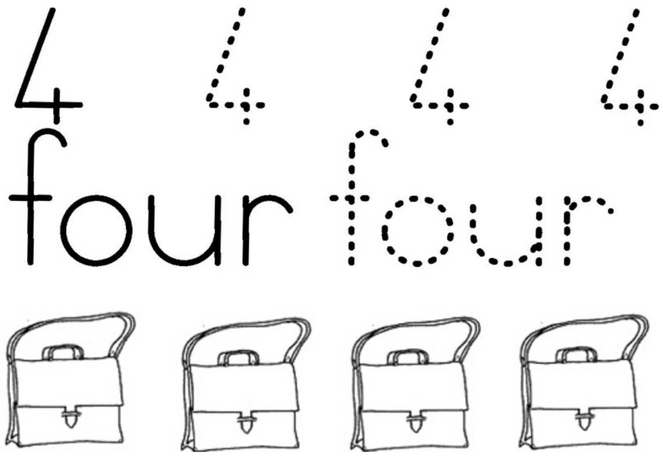


Figure 1.87

- Unpack the cases.

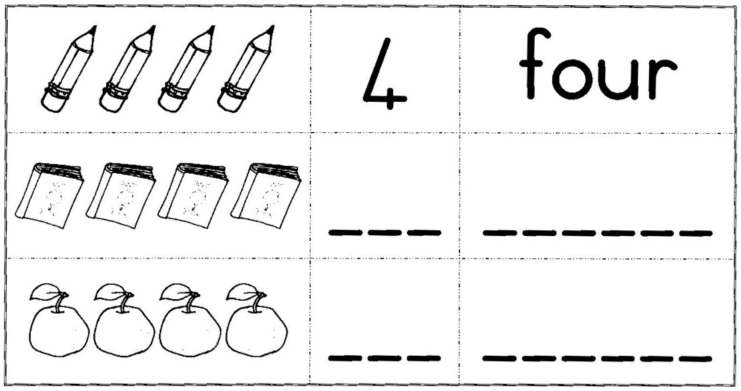


Figure 1.88

LO 1.3	

Table 1.42

- Complete your lunch box. Count in 2's.

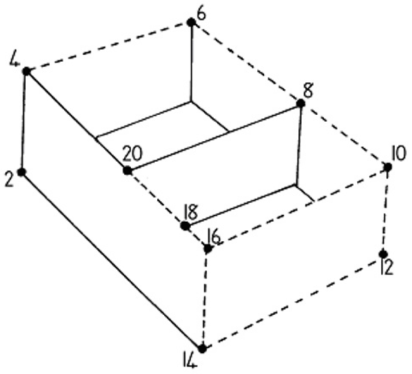


Figure 1.89

- Choose what you would like to have in your lunch box.

---

cookies ☐
white bread ☐
biltong ☐
sweets ☐
brown bread ☐
fruit juice ☐
cool drink ☐
chips ☐
apple ☐

Figure 1.90

- Fill your lunch box by pasting pictures from a magazine on it:

LO 1.2		LO 3.1		LO 5.2		LO 5.3	

Table 1.43

- Make one more:

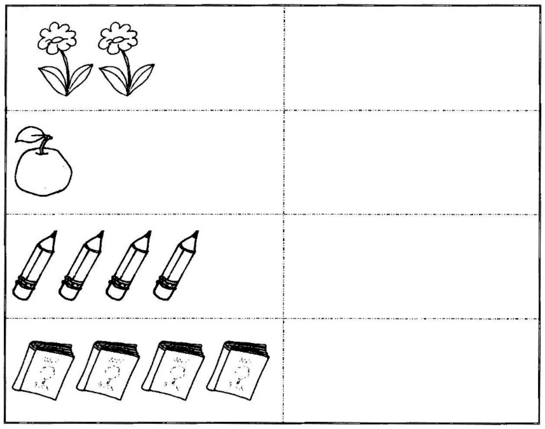


Figure 1.91

- Draw 4 four every time.

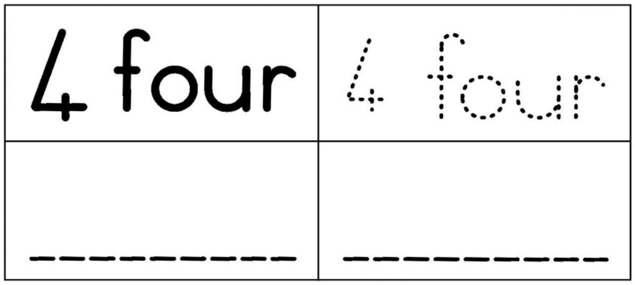


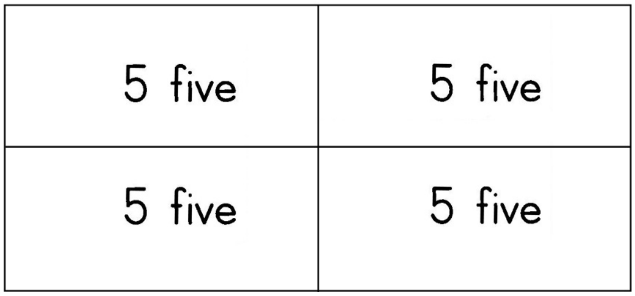
Figure 1.92

LO 1.3		LO 1.9	

Table 1.44

- Join all the 5c coins. Count the 5c coins. ……………………………… 5c coins.

Figure 1.93



5 five	5 five
5 five	5 five

Figure 1.94

LO 1.1		LO 1.3	

Table 1.45

- Arrange 5 dots in a different way every time.

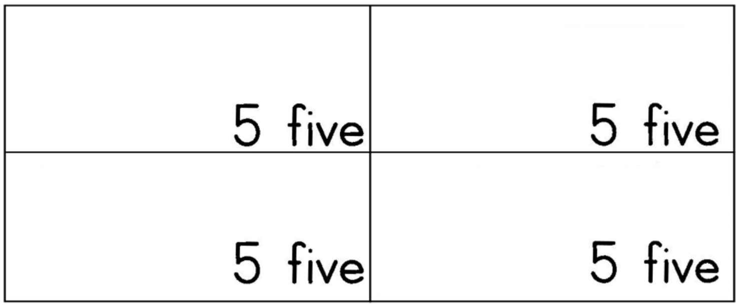


Figure 1.95

- Write:

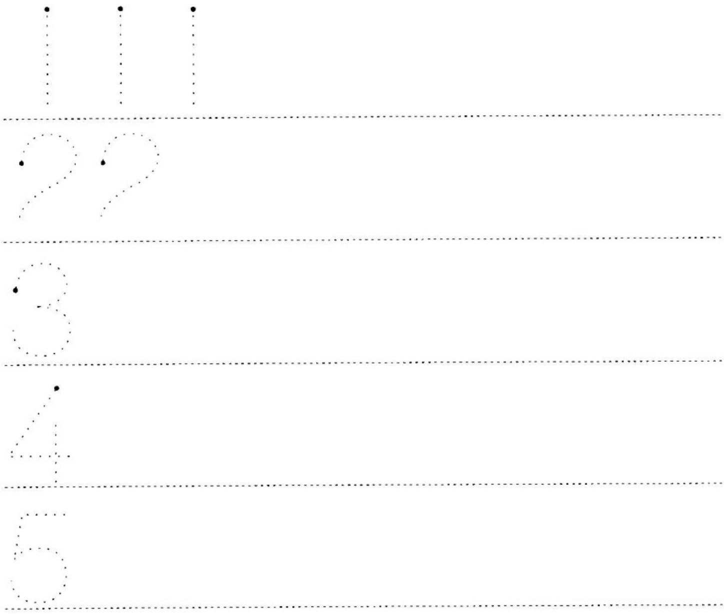


Figure 1.96

LO 1.3	

Table 1.46

- Rearrange from 1 to 5:

2	1	3	4	5
1	___	___	___	___
4	3	2	1	5
1	___	___	___	___
3	2	5	1	4
___	___	___	___	___

Table 1.47

- Estimate how many books there are? ______
- Count: ___________ books.

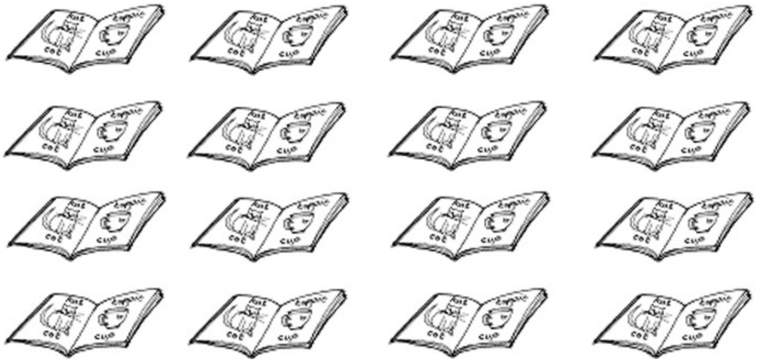


Figure 1.97

LO 1.1		LO 1.4	

Table 1.48

- Share out the 10 books on the bookshelf. There must be the same number of books on each shelf.

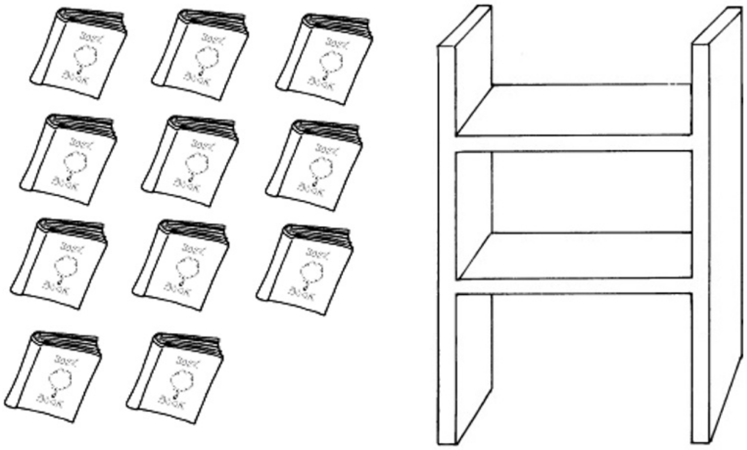


Figure 1.98

- There are ________ books on each shelf.
- Draw:

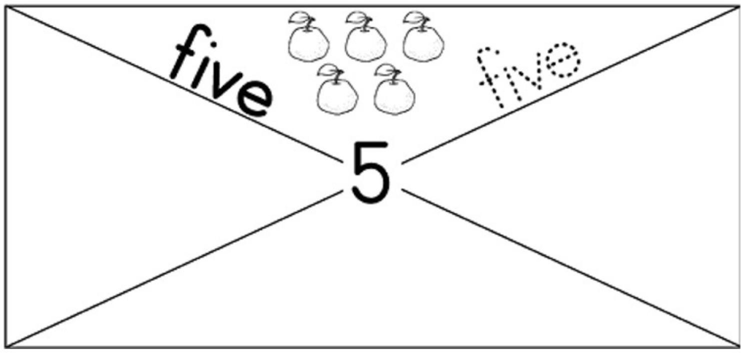


Figure 1.99

LO 1.3		LO 1.6	

Table 1.49

1.10.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forwards and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.9: We know this when the learner uses techniques

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. ‘Sort crayons into colours’);

Assessment Standard 5.3: We know this when the learner gives reasons for collections being grouped in particular ways.

1.11 Number Fun - 03[11]

1.11.1 MATHEMATICS

1.11.2 Number Fun

1.11.3 EDUCATOR SECTION

1.11.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;

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[11] This content is available online at <http://cnx.org/content/m31716/1.1/>.

4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
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12. develop entrepreneurial opportunities.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

1.11.5 LEARNERS SECTION

1.11.6 Content

- Sort **light** and **heavy** objects:
- Draw them below.

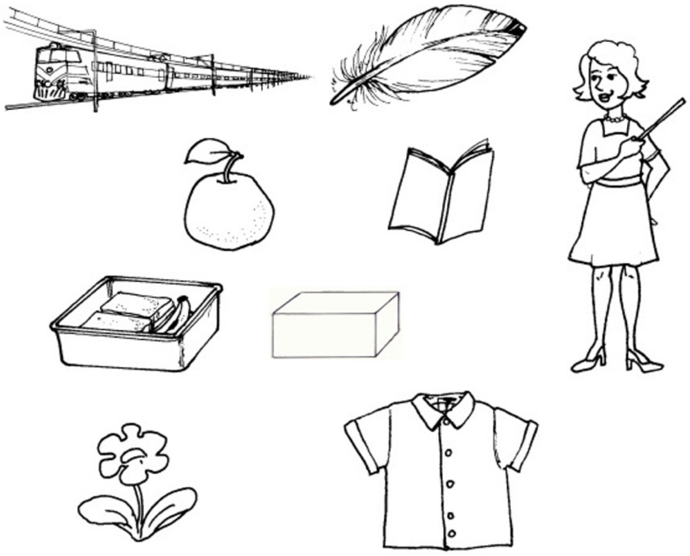


Figure 1.100

Figure 1.101

- light

Figure 1.102

- heavy

LO 4.5		LO 5.2		LO 5.6	

Table 1.50

- Cut out, match and paste on the following page.

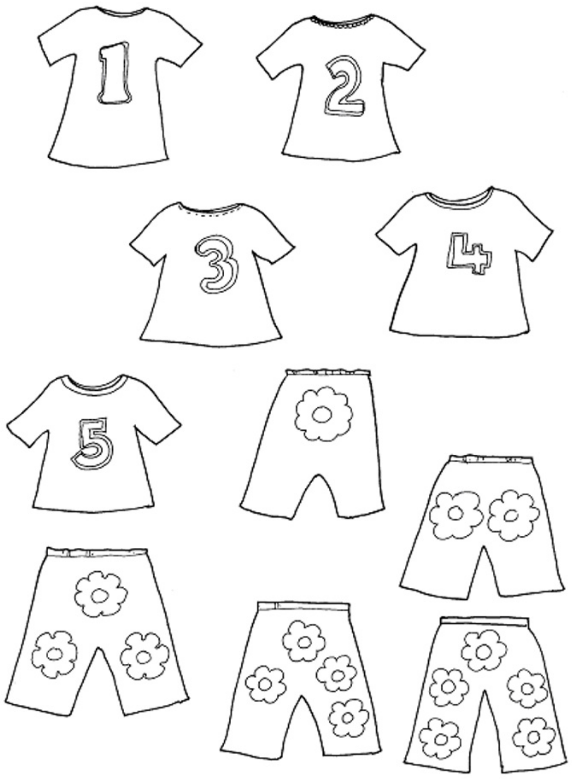


Figure 1.103

LO 1.3	

Table 1.51

- Match and paste in a row. Draw arms, legs, etc.

Figure 1.104

LO 1.4	

Table 1.52

- Complete:

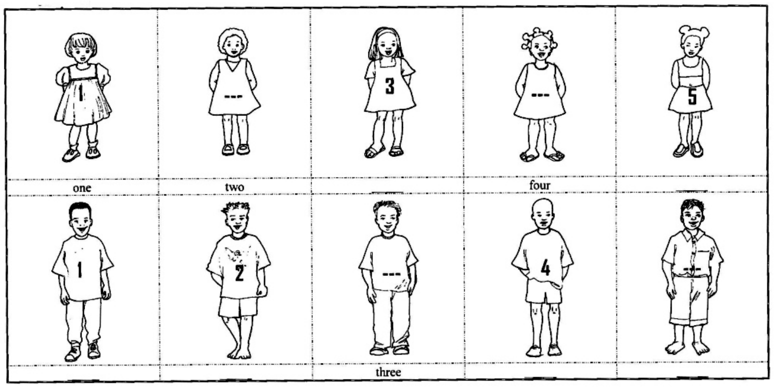
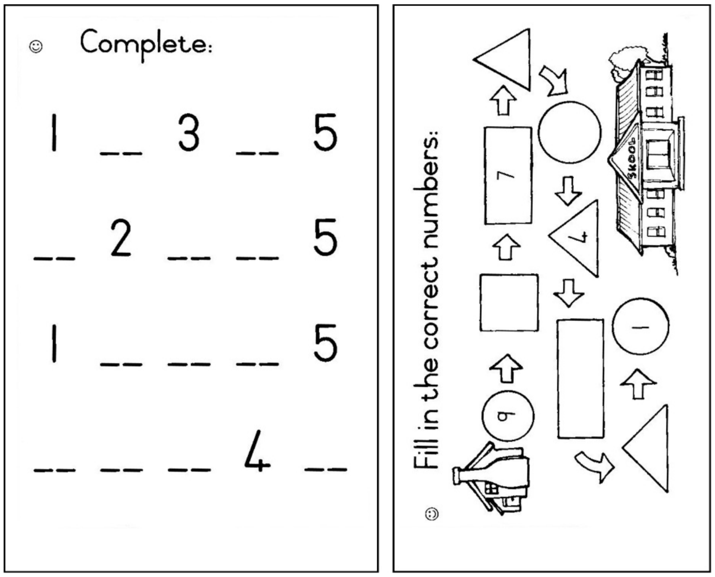


Figure 1.105

LO 1.4	

Table 1.53



Complete:

1 __ 3 __ 5

__ 2 __ __ 5

1 __ __ __ 5

__ __ __ 4 __

Fill in the correct numbers:
7
4
1
9
SKOOL

Figure 1.106

- Which numbers did Wolf catch?

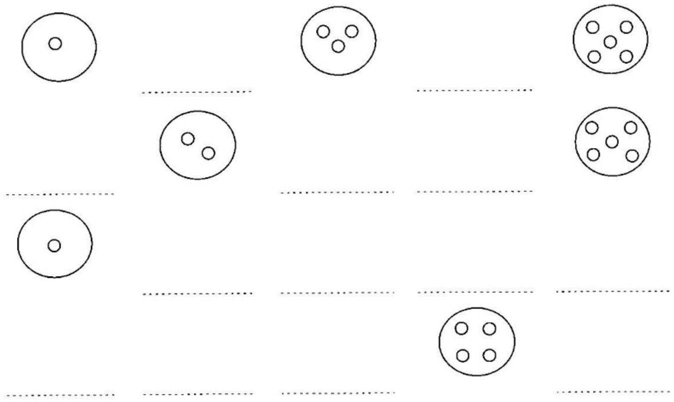


Figure 1.107

LO 1.4	

Table 1.54

- How do I get to school?

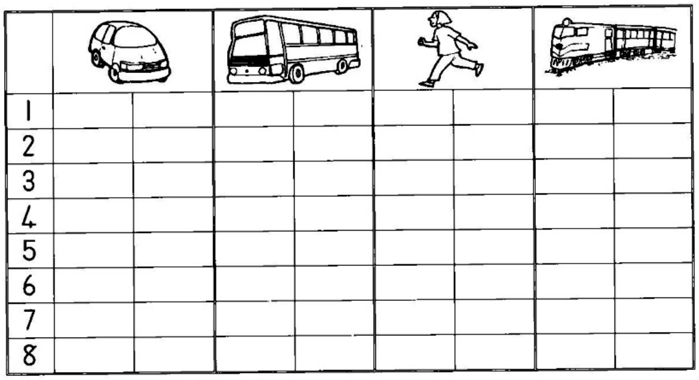
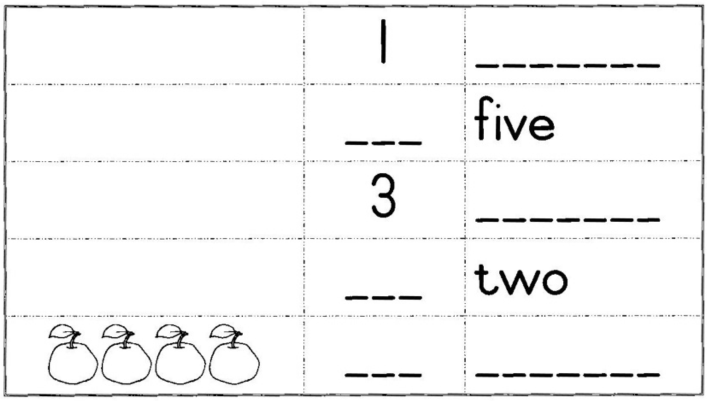


Figure 1.108

- Most children: _________________
- The fewest children: _________________
- Complete:

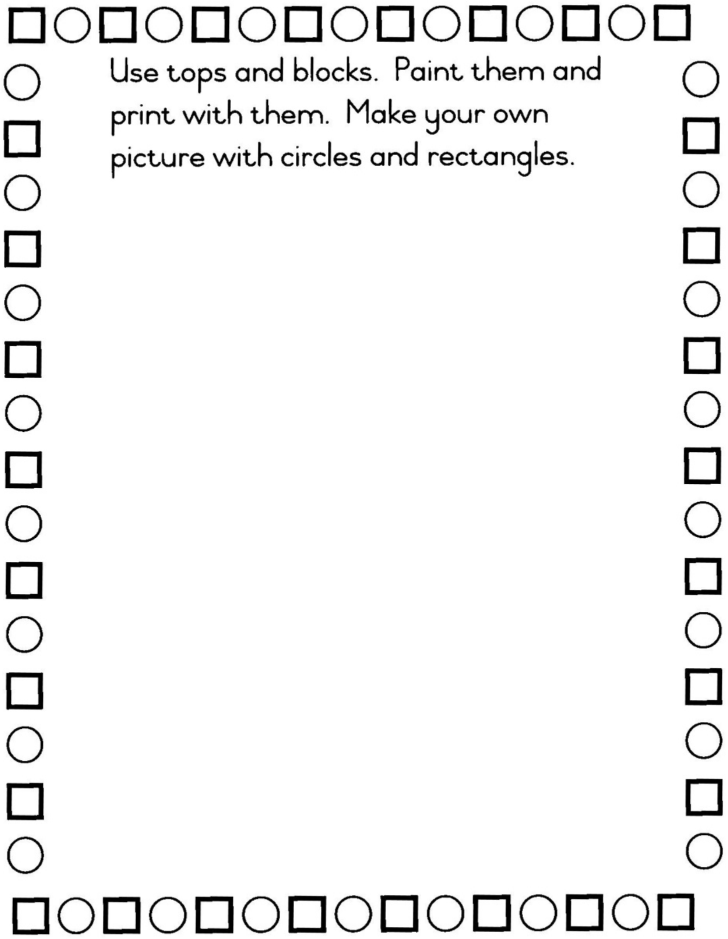


	1	_______
	___	five
	3	_______
	___	two
	___	_______

Figure 1.109

LO 1.3		LO 5.1		LO 5.2		LO 5.5	

Table 1.55



Use tops and blocks. Paint them and print with them. Make your own picture with circles and rectangles.

Figure 1.110

LO 3.1	

Table 1.56

1.11.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

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Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

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Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.1: We know this when the learner collects everyday objects (alone and/or as a member of a group or team) in the classroom and school environment according to given criteria or categories;

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours');

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects;

Assessment Standard 5.6: We know this when the learner describes own collection of objects, explains how it was sorted, and answers questions about it.

Chapter 2

Term 2

2.1 Number Fun - Module 3 - 01[1]

2.1.1 MATHEMATICS

2.1.2 Number Fun

2.1.3 EDUCATOR SECTION

2.1.4 Memorandum

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8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and

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[1] This content is available online at <http://cnx.org/content/m31745/1.1/>.

12. develop entrepreneurial opportunities.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

2.1.5 LEARNERS SECTION

2.1.6 Content

- Cut out the three bears on page 2 and paste them here.

Figure 2.1

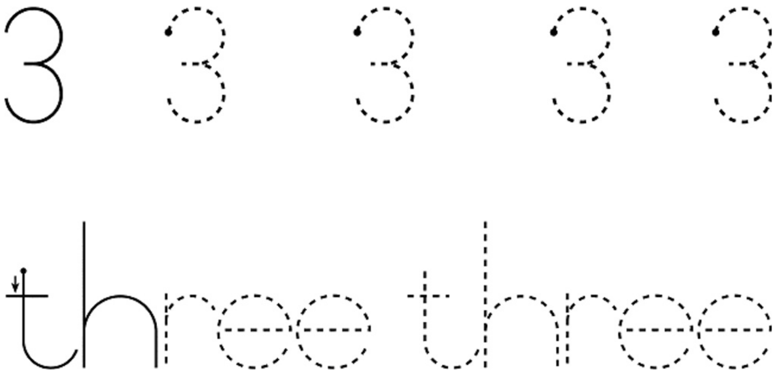

Figure 2.2

LO 1.3	

Table 2.1

- Cut out.

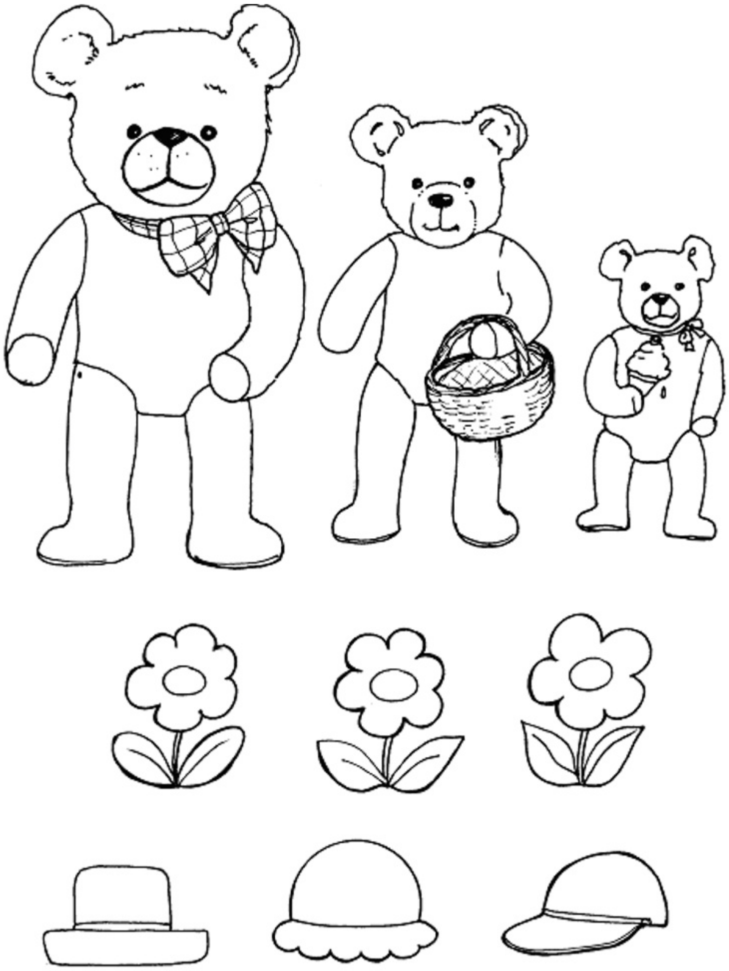

Figure 2.3

LO 1.1	

Table 2.2

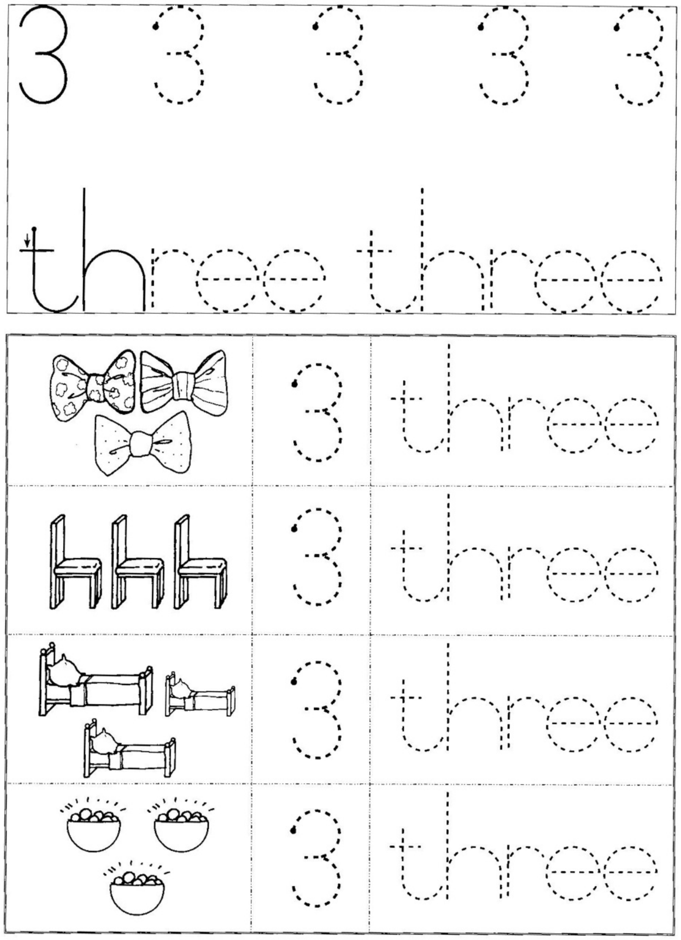

Figure 2.4

LO 1.3	

Table 2.3

- Draw three objects every time.

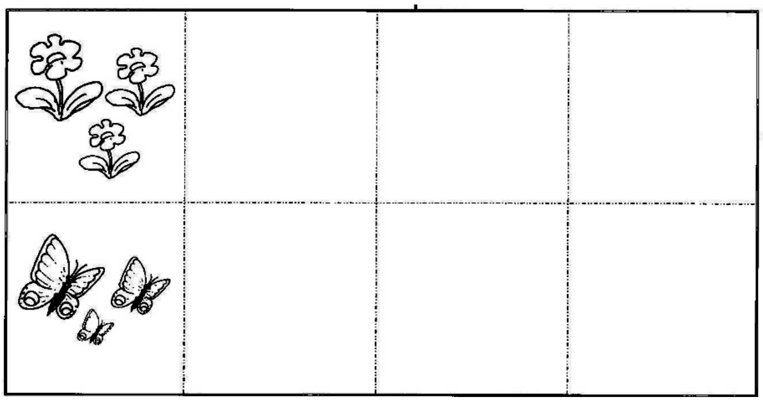

Figure 2.5

- Complete.

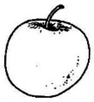	1	
		two
	3	
	2	

Figure 2.6

LO 1.3	

Table 2.4

- Look at your little bear.

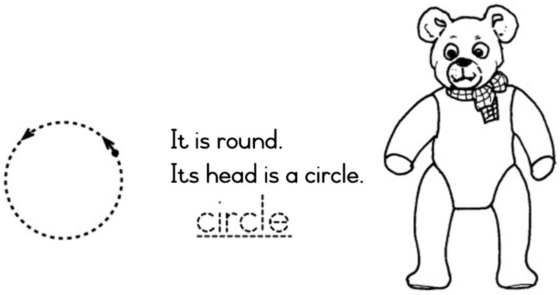
It is round.
Its head is a circle.
circle

Figure 2.7

Draw around its head.

Talk about:
Can it roll? Can it slide? Does it have corners?

- Draw many circles and colour them in.

Figure 2.8

LO 3.1	

Table 2.5

- Look for `[U+F0A1]`'s in magazines and paste them here.

Figure 2.9

- Draw:**many** circles.

•

Figure 2.10

Colour them **orange**.

- Draw:**few** circles.
- Colour them **purple**.

Figure 2.11

LO 3.1	

Table 2.6

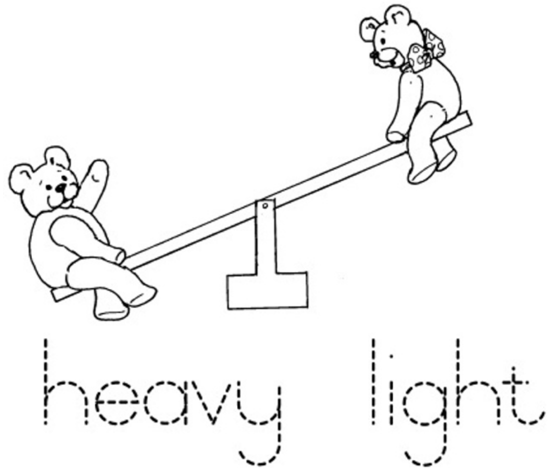

Figure 2.12

- Find a picture of something that is heavy and something that is light.

Figure 2.13

heavy

Figure 2.14

light

LO 4.6	

Table 2.7

- Make the basket heavier.

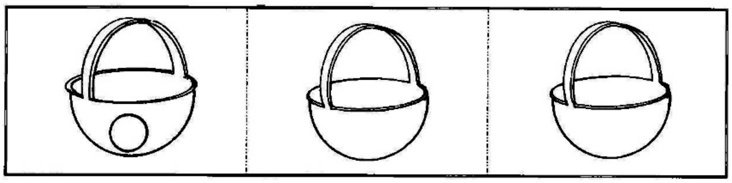

Figure 2.15

- Make the basket lighter.

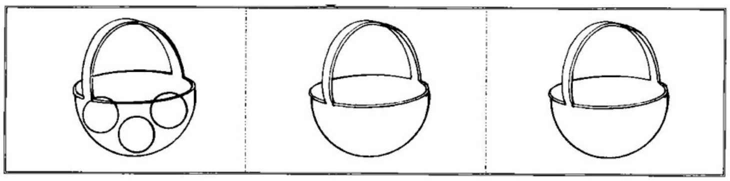

Figure 2.16

.

- Does everyone have a hat?

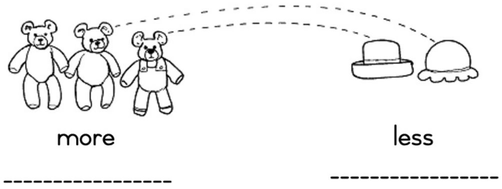

Figure 2.17

- Give everyone a basket.

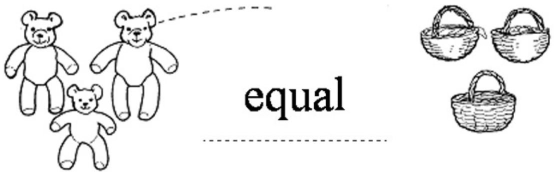

Figure 2.18

LO 4.5	

Table 2.8

2.1.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

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Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Assessment Standard 4.6: We know this when the learner understands language.

2.2 Number Fun - Module 3 - 02[2]

2.2.1 MATHEMATICS

2.2.2 Number Fun

2.2.3 EDUCATOR SECTION

2.2.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

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[2] This content is available online at <http://cnx.org/content/m31748/1.1/>.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
- Inclusively: Matching to show same number – no exceptions made

The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

2.2.5 LEARNERS SECTION

2.2.6 Content

- A rhyme to learn:

Five little bears
heard a lion roar
one went up too close
and then there were four.
Four little bears
climbed up a tree
one came tumbling down
and there were three.

Three little bears
tried to cook a stew
one cut his finger
and then there were two.
Two little bears
were sitting in the sun
one stayed there far too long
and then there was one.
One little bear
went for a run
he didn't turn back again
and now there are none.
R. Louw

LO 1.2	

Table 2.9

- Count the little bears.

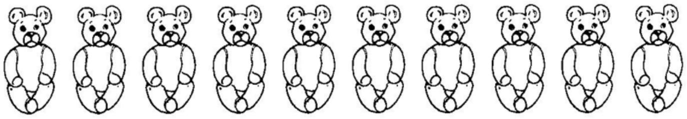
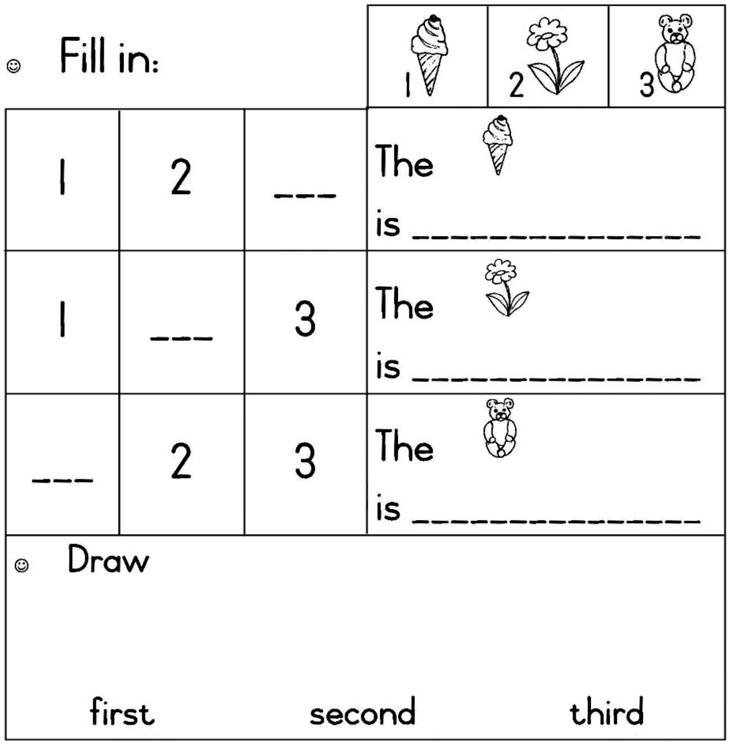


Figure 2.19

- Draw a circle around the **first** and **last** bear.



☺ Fill in:

			1 2 3
1	2	___	The is ______________
1	___	3	The is ______________
___	2	3	The is ______________

☺ Draw

first second third

Figure 2.20

LO 1.1		LO 1.3		LO 1.4	

Table 2.10

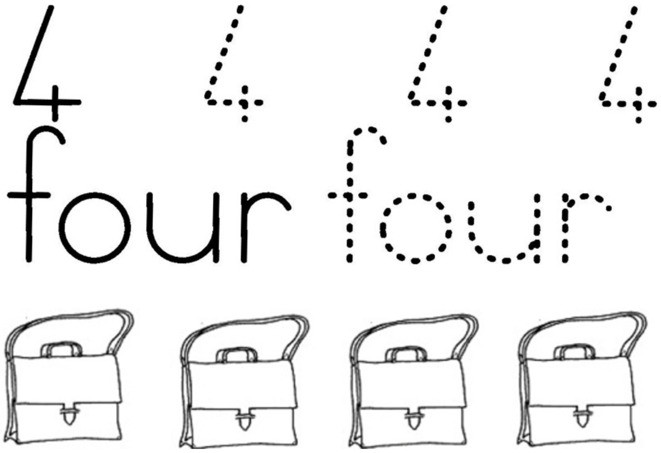


Figure 2.21

- Unpack the cases.

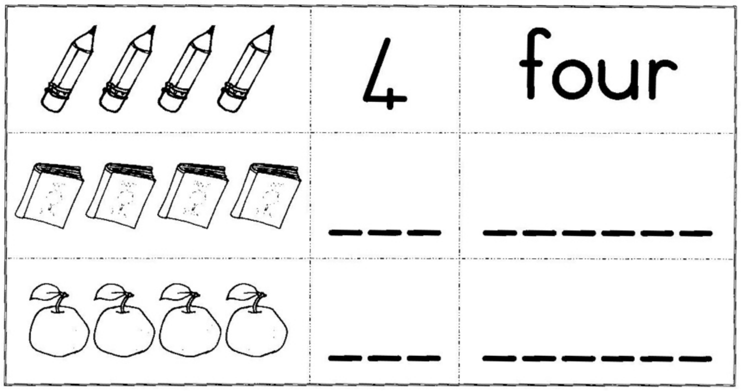


Figure 2.22

LO 1.3	

Table 2.11

- Complete your lunch box. Count in 2's.

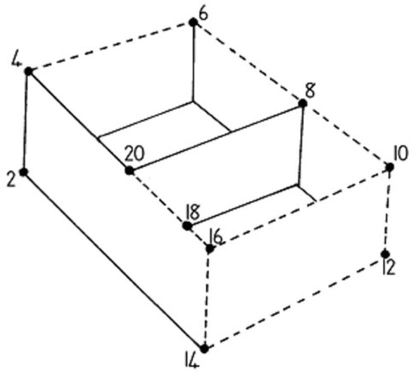


Figure 2.23

- Choose what you would like to have in your lunch box.

---

cookies ☐
white bread ☐
biltong ☐
sweets ☐
brown bread ☐
fruit juice ☐
cool drink ☐
chips ☐
apple ☐

Figure 2.24

- Fill your lunch box by pasting pictures from a magazine on it:

LO 1.2		LO 3.1		LO 5.2		LO 5.3	

Table 2.12

- Make one more:

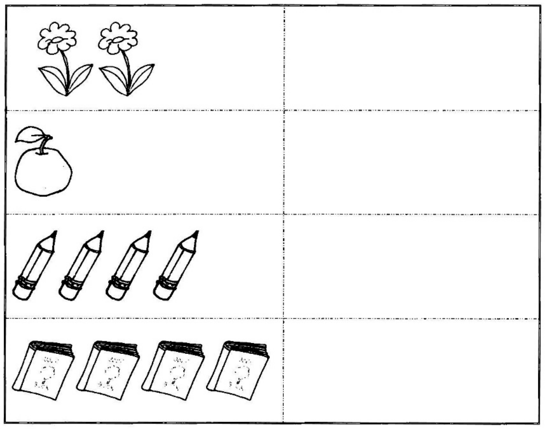


Figure 2.25

- Draw 4 four every time.

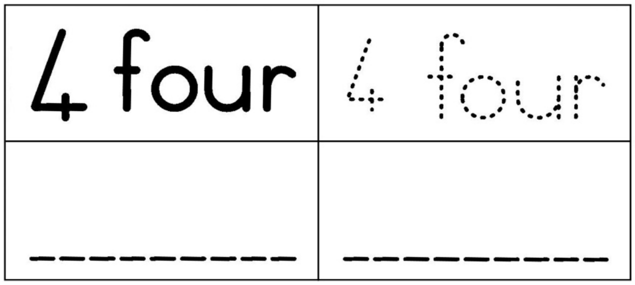


Figure 2.26

LO 1.3		LO 1.9	

Table 2.13

- Join all the 5c coins. Count the 5c coins. …………………………… 5c coins.

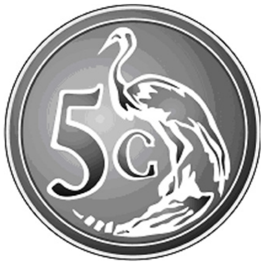
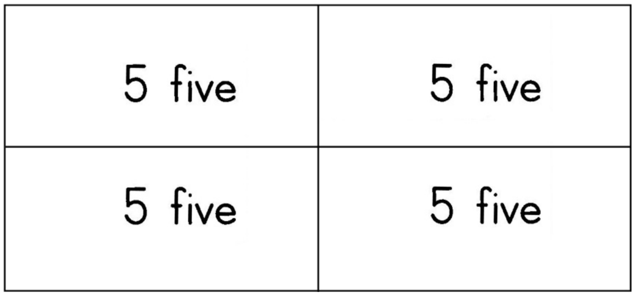


Figure 2.27



5 five	5 five
5 five	5 five

Figure 2.28

LO 1.1		LO 1.3	

Table 2.14

- Arrange 5 dots in a different way every time.

5 five	5 five
5 five	5 five

Figure 2.29

- Write:

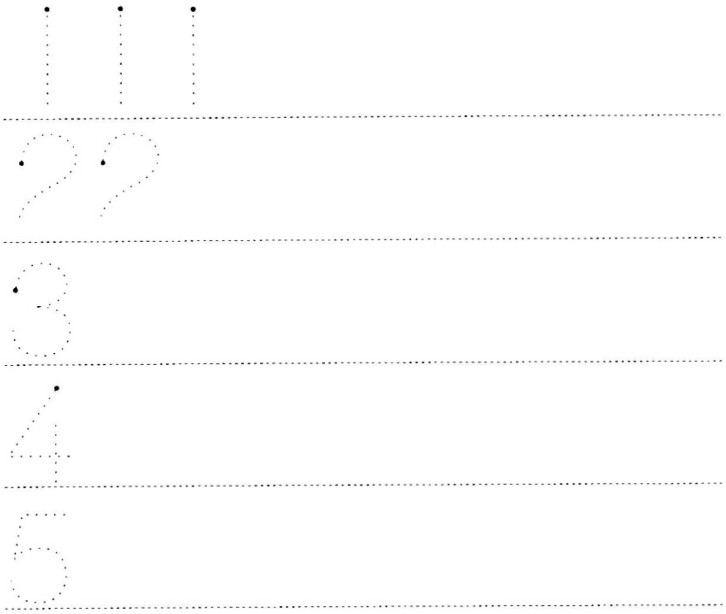


Figure 2.30

LO 1.3	

Table 2.15

- Rearrange from 1 to 5:

2	1	3	4	5
1	___	___	___	___
4	3	2	1	5
1	___	___	___	___
3	2	5	1	4
___	___	___	___	___

Table 2.16

- Estimate how many books there are? ______
- Count: ___________ books.

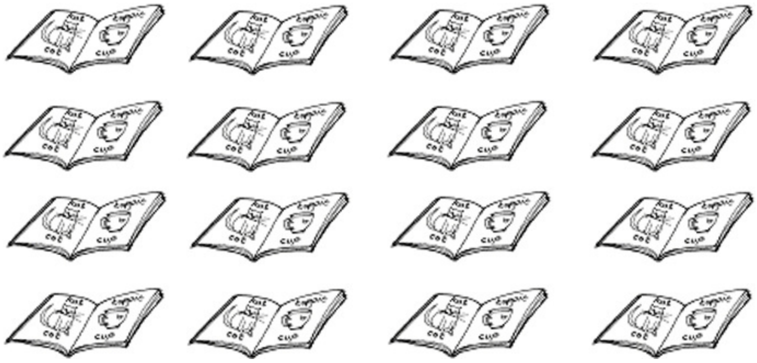


Figure 2.31

LO 1.1		LO 1.4	

Table 2.17

- Share out the 10 books on the bookshelf. There must be the same number of books on each shelf.

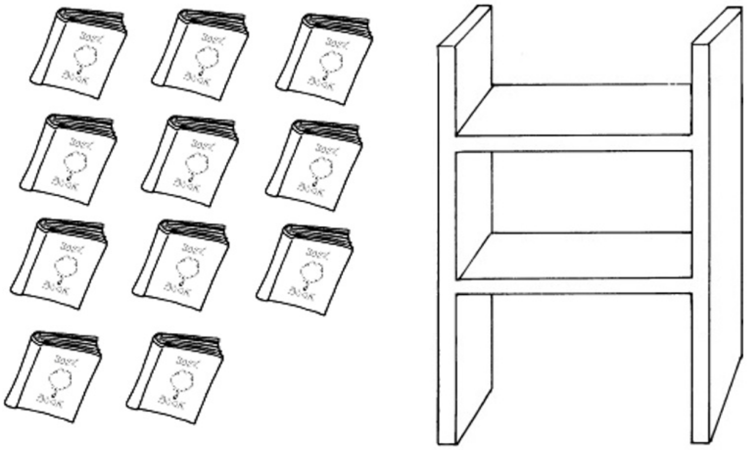


Figure 2.32

- There are _ _ _ _ _ _ _ books on each shelf.
- Draw:

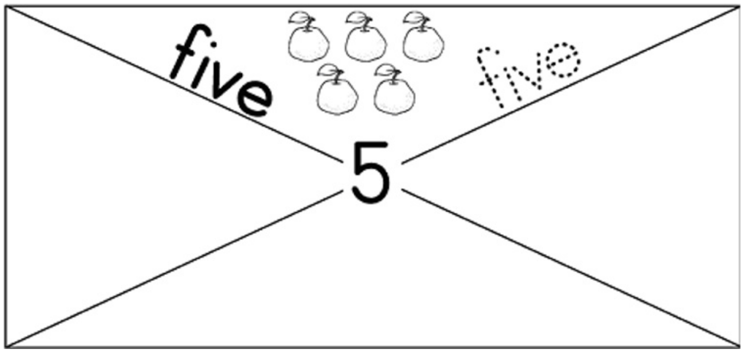


Figure 2.33

LO 1.3		LO 1.6	

Table 2.18

2.2.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forwards and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.9: We know this when the learner uses techniques

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours');

Assessment Standard 5.3: We know this when the learner gives reasons for collections being grouped in particular ways.

2.3 Number Fun - Module 3 - 03[3]

2.3.1 MATHEMATICS

2.3.2 Number Fun

2.3.3 EDUCATOR SECTION

2.3.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

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[3] This content is available online at <http://cnx.org/content/m31754/1.1/>.

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
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4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
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- Integration of Themes: Summer
- Human Rights: Learners can be taught to be neat and tidy.
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The three bears help the learners to understand:

- number concept 1 to 5;
- counting activities in ones and twos to 20 and counting rhymes;
- colours: purple and orange;
- vocabulary: light, heavy, more, less, first and last;
- shapes – circles;
- completing a graph about how we come to school.

2.3.5 LEARNERS SECTION

2.3.6 Content

- Sort **light** and **heavy** objects:
- Draw them below.

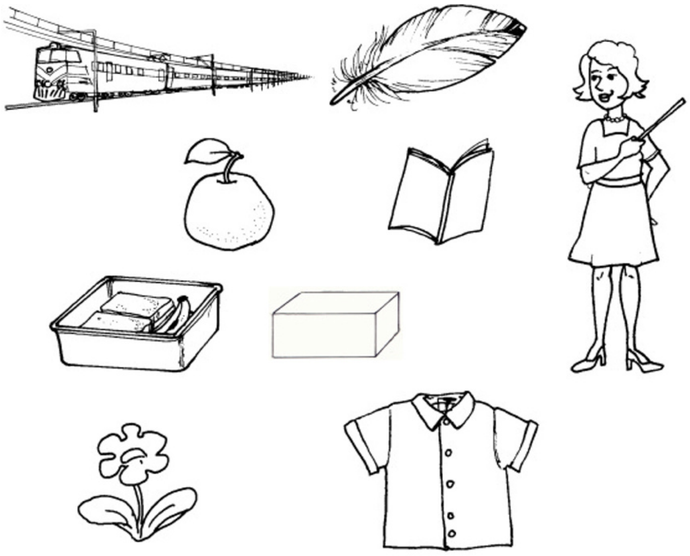


Figure 2.34

Figure 2.35

- light

Figure 2.36

- heavy

LO 4.5		LO 5.2		LO 5.6	

Table 2.19

- Cut out, match and paste on the following page.

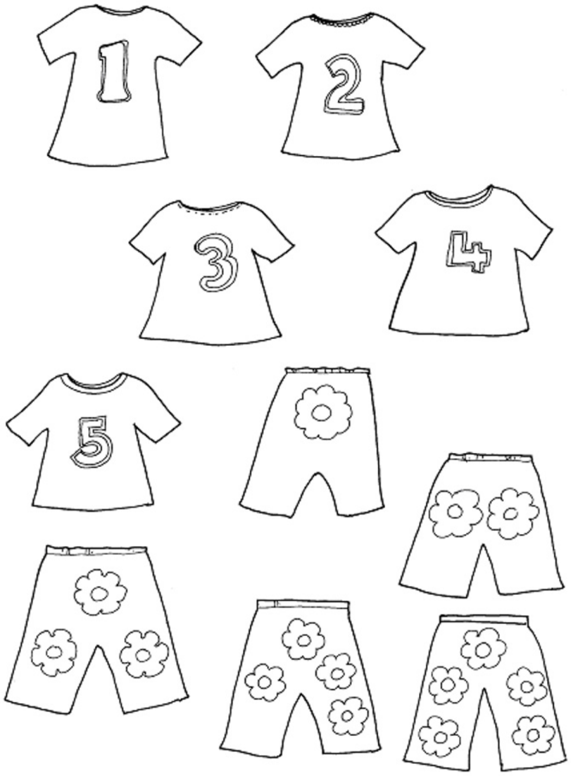


Figure 2.37

LO 1.3	

Table 2.20

- Match and paste in a row. Draw arms, legs, etc.

Figure 2.38

LO 1.4	

Table 2.21

- Complete:

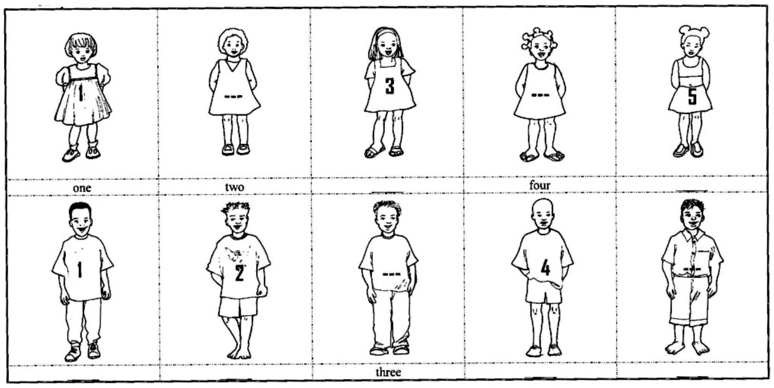


Figure 2.39

LO 1.4	

Table 2.22

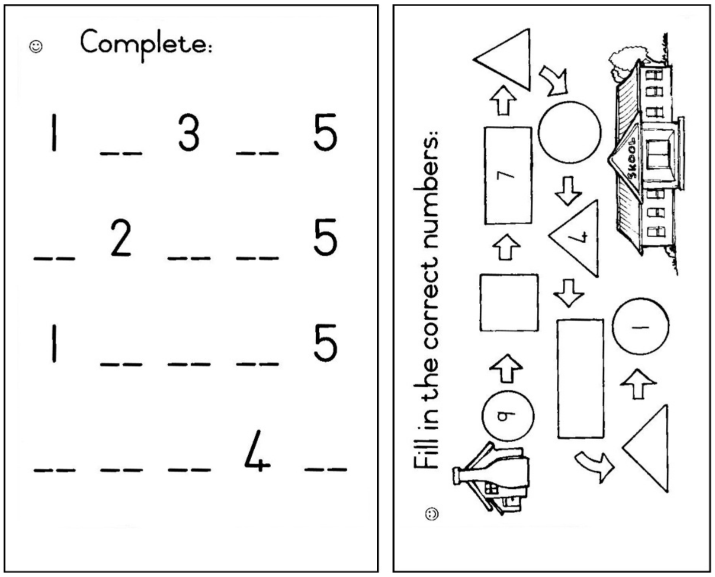


Figure 2.40

- Which numbers did Wolf catch?

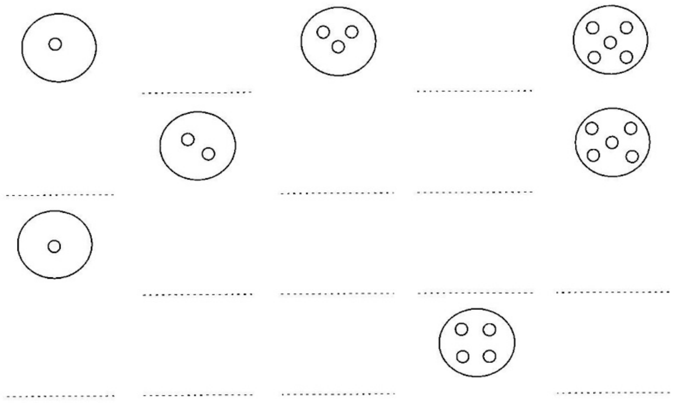


Figure 2.41

LO 1.4	

Table 2.23

- How do I get to school?

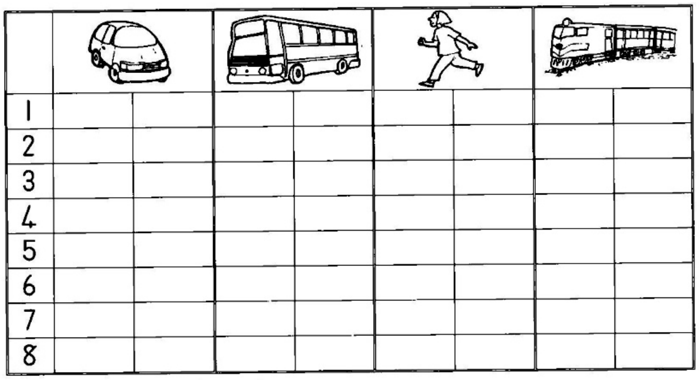


Figure 2.42

- Most children: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
- The fewest children: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
- Complete:

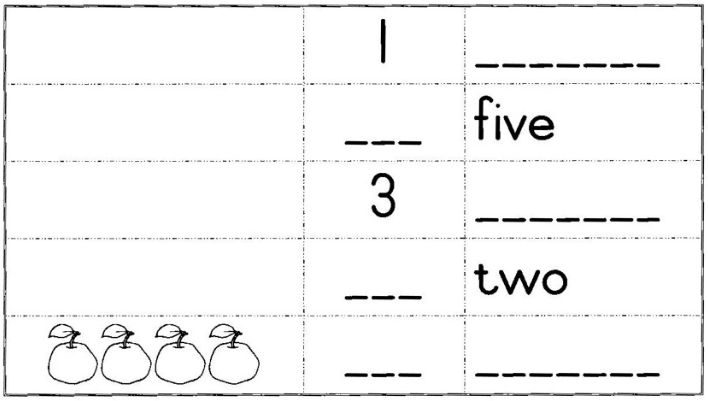
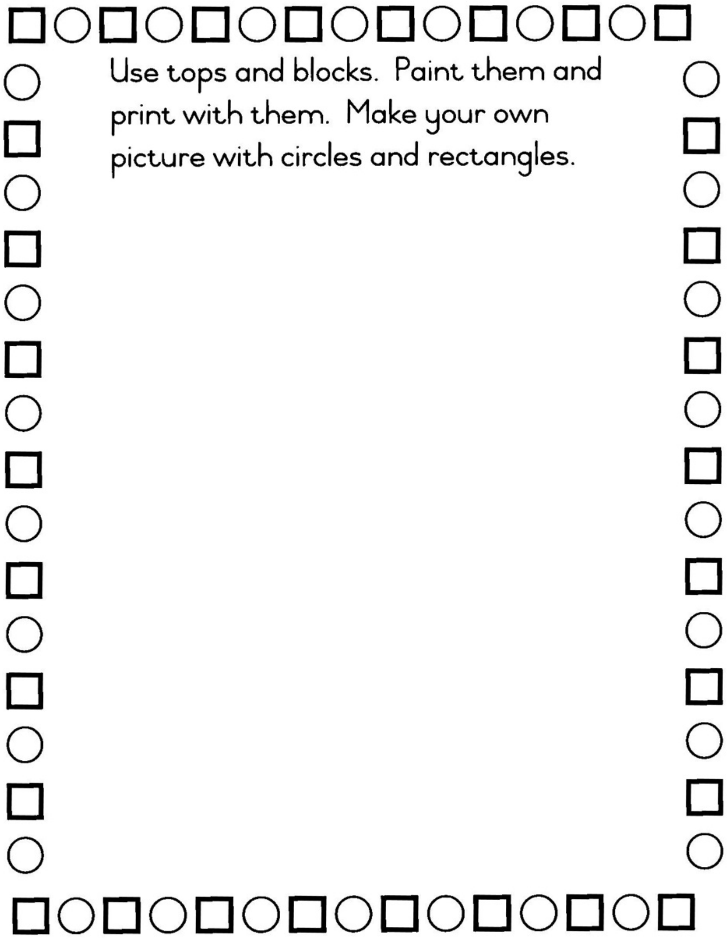


Figure 2.43

LO 1.3		LO 5.1		LO 5.2		LO 5.5	

Table 2.24



Use tops and blocks. Paint them and print with them. Make your own picture with circles and rectangles.

Figure 2.44

LO 3.1	

Table 2.25

2.3.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.3: We know this when the learner knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34;

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Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.1: We know this when the learner collects everyday objects (alone and/or as a member of a group or team) in the classroom and school environment according to given criteria or categories;

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours');

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects;

Assessment Standard 5.6: We know this when the learner describes own collection of objects, explains how it was sorted, and answers questions about it.

2.4 Number Fun - Module 4 - 01[4]

2.4.1 MATHEMATICS

2.4.2 Get clever with numbers

2.4.3 EDUCATOR SECTION

2.4.4 Memorandum

INTRODUCTION

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[4] This content is available online at <http://cnx.org/content/m31779/1.1/>.

2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
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8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Autumn
- A healthy environment: The signs of Autum.

Activities around autumn help the learners to understand:

- ordinals to 9;
- number concept to 9;
- counting activities and counting rhyme in 5's;
- concepts of 2 more, 2 less, doubling and sharing out equally;
- before and after on the number line;
- introducing the minus sign "–";
- bonds to 6;
- the introduction of wordsums;
- shapes – squares and rectangles.

2.4.5 LEARNERS SECTION

2.4.6 Content

- Draw a nice big autumn leaf in each block.
- Colour them in.
- Cut them out and paste them.

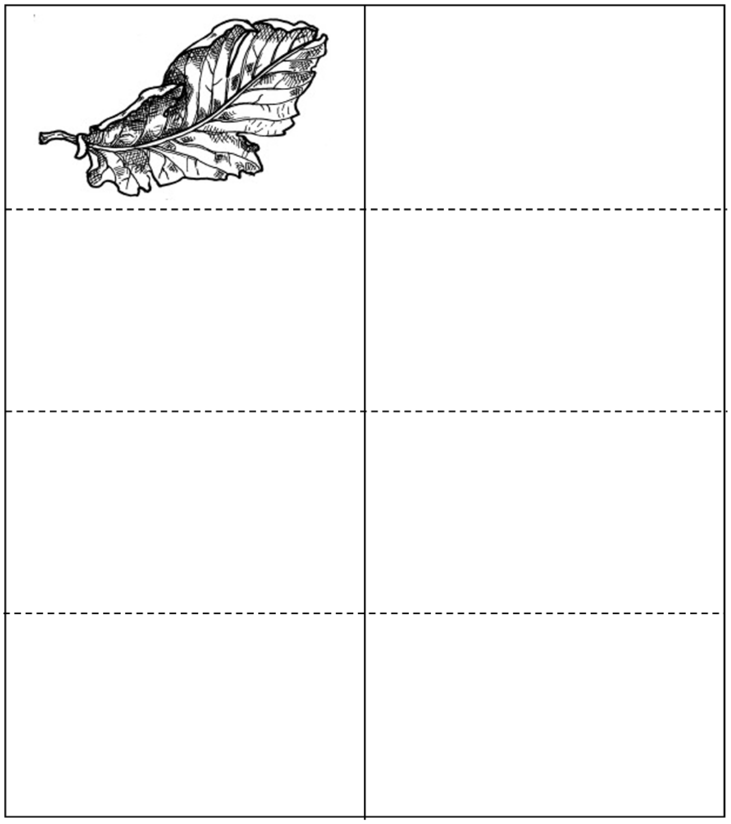


Figure 2.45

8 ....

eight ....

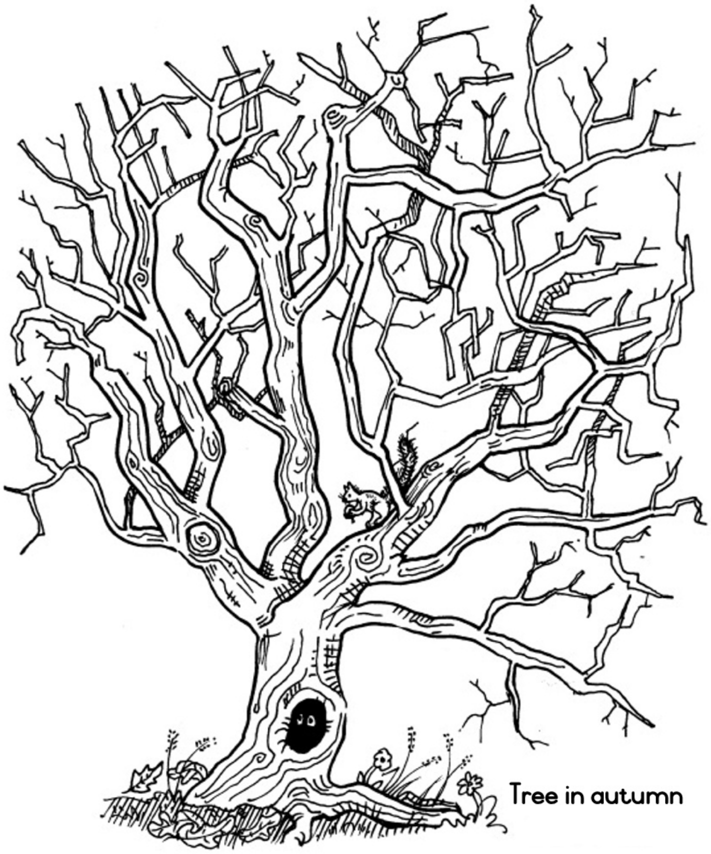


Figure 2.46

- Paste 8 autumn leaves in here.
- Count all the autumn leaves.

LO 1.1	

Table 2.26

- Complete the blocks with 8.
- Write "eight" next to each picture.

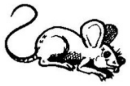
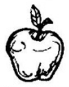
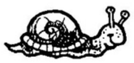
	eight		eight
	....		....
	....		....

Figure 2.47

- Arrange eight circles in different ways.
- Colour the circles in.

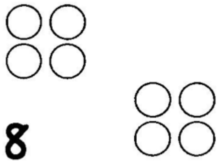
	....
....	....
....	....

Figure 2.48

LO 1.3		LO 1.9	

Table 2.27

- Make every row 2 more.

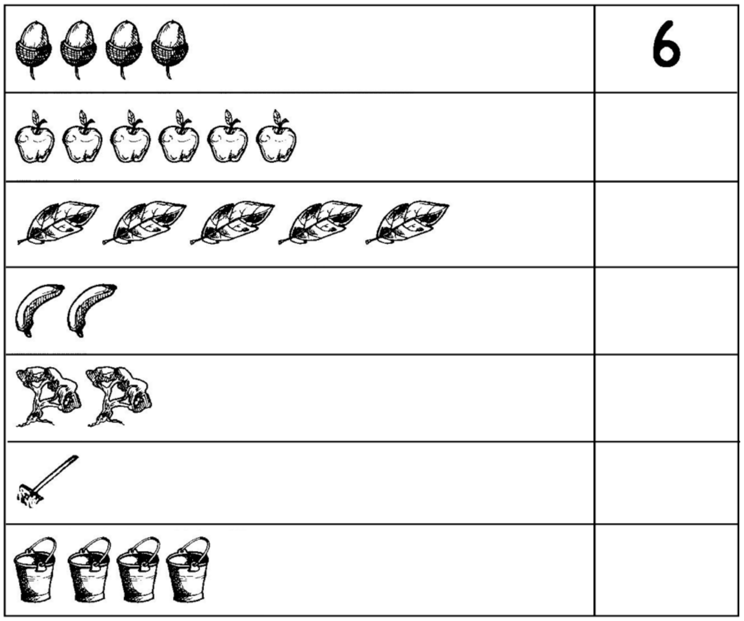


Figure 2.49

- Complete the numbers on the stairs .

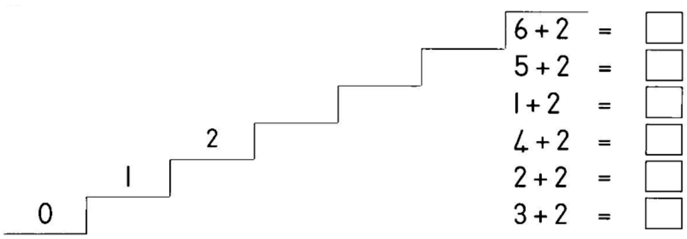


Figure 2.50

- Complete the number sentences.

Let the stairs help you to make two more every time.

LO 1.1		LO 1.8		LO 2.2	

Table 2.28

- Make 2 less. How many are left?

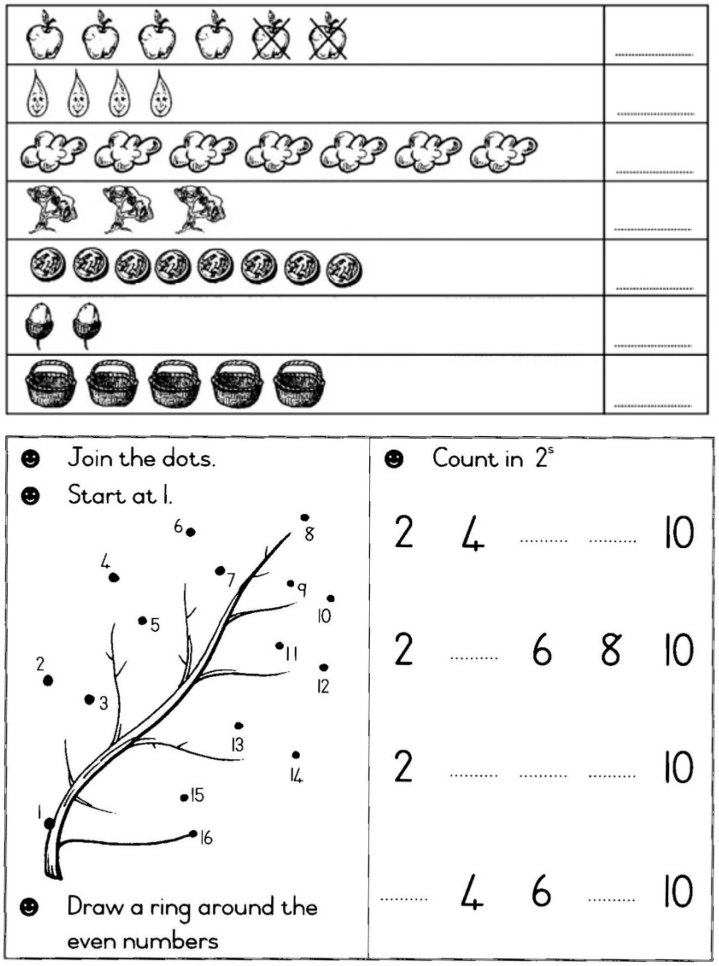


Figure 2.51

LO 1.2		LO 1.3		LO 2.2	

Table 2.29

- A counting rhyme for you to learn.

5, 10, 15, 20,
See the creatures on the go.
5, 10, 15, 20,
Why do they hurry to and fro?
5, 10, 15, 20,
It's getting colder by the day
5, 10, 15, 20,
And they must store some food away
R.L.

- Draw the animals that are busy during autumn.

Figure 2.52

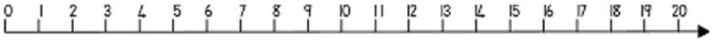


Figure 2.53

What comes just after 6?...
What comes just before 8?...
What comes between 10 and 12?...
What is one more than 5? ....
What is one less than 3?..
What comes between 4 and 6?..

LO 1.2		LO 1.4		LO 1.9	

Table 2.30

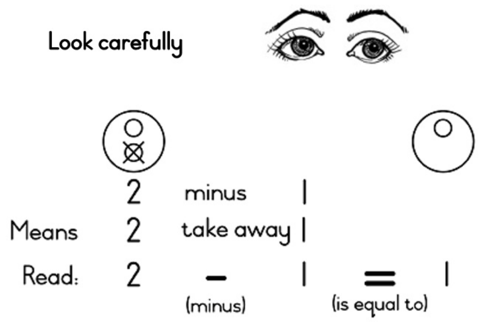


Figure 2.54

- Complete:

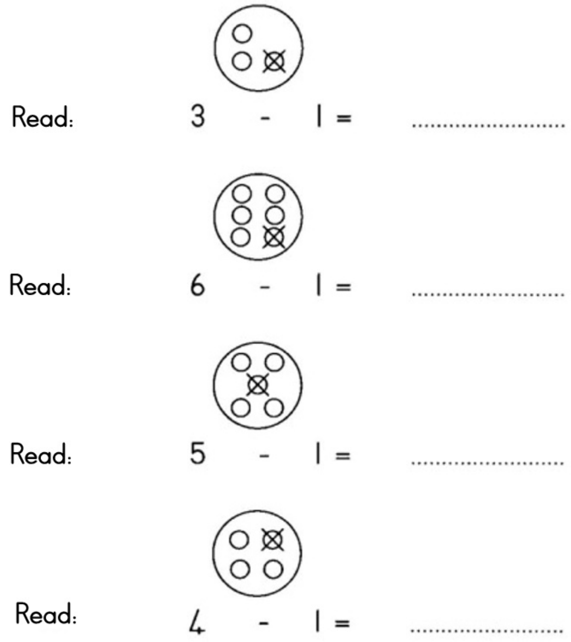

Read: 3 - 1 = ...
Read: 6 - 1 = ...
Read: 5 - 1 = ...
Read: 4 - 1 = ...

Figure 2.55

LO 1.8	

Table 2.31

- Complete:

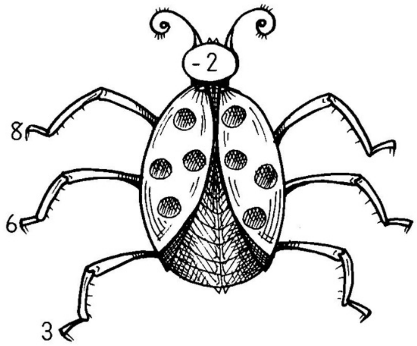
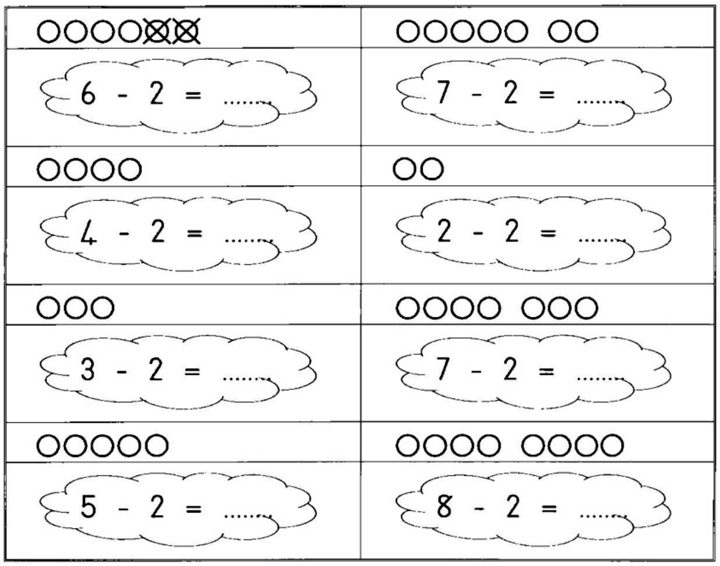


Figure 2.56

- Take away 2 every time:



○○○○⊗⊗	○○○○○ ○○
6 - 2 = ...	7 - 2 = ...
○○○○	○○
4 - 2 = ...	2 - 2 = ...
○○○	○○○○ ○○○
3 - 2 = ...	7 - 2 = ...
○○○○○	○○○○ ○○○○
5 - 2 = ...	8 - 2 = ...

Figure 2.57

LO 1.8	

Table 2.32

- Colour in and count:

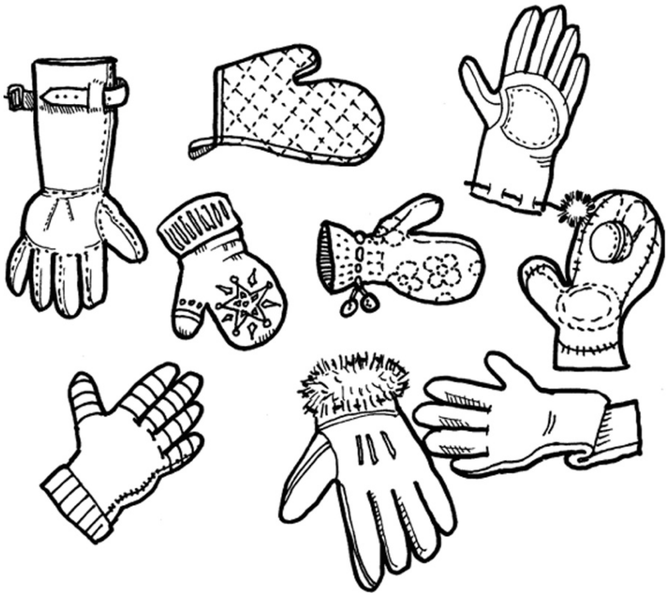


Figure 2.58

- Copy:

9
nine

LO 1.1		LO 1.3	

Table 2.33

- Complete:

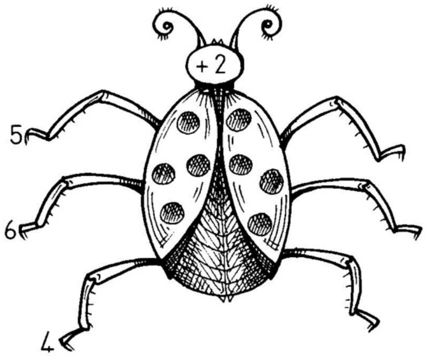


Figure 2.59

- Arrange the numbers from 1 to 9.

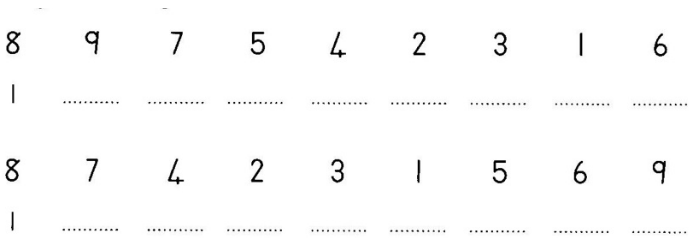


Figure 2.60

- Complete:

Nine comes just after...
One more than eight is...

- Back:

9	8			5			2		0

Table 2.34

LO 1.4		LO 1.8	

Table 2.35

2.4.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forward and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100.

2.5 Number Fun - Module 4 - 02[5]

2.5.1 MATHEMATICS

2.5.2 Get clever with numbers

2.5.3 EDUCATOR SECTION

2.5.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;

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[5] This content is available online at <http://cnx.org/content/m31786/1.1/>.

7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Autumn
- A healthy environment: The signs of Autum.

Activities around autumn help the learners to understand:

- ordinals to 9;
- number concept to 9;
- counting activities and counting rhyme in 5's;
- concepts of 2 more, 2 less, doubling and sharing out equally;
- before and after on the number line;
- introducing the minus sign "–";
- bonds to 6;
- the introduction of wordsums;
- shapes – squares and rectangles.

2.5.5 LEARNERS SECTION

2.5.6 Content

- Draw the same number of circles on the other side and count. It means to **double**.

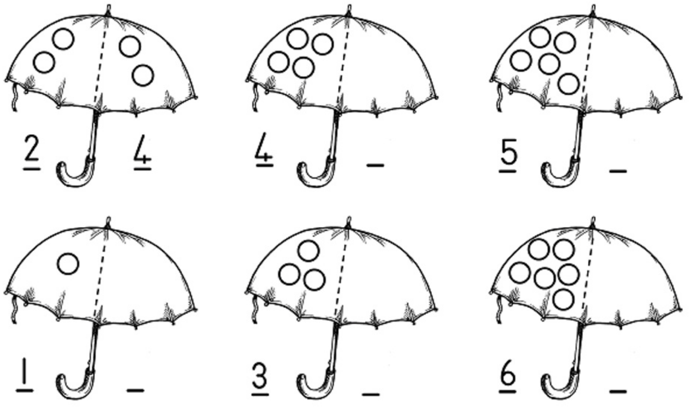
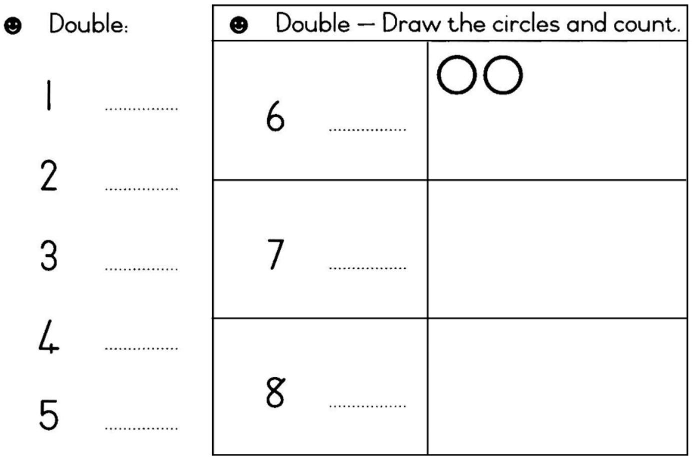


Figure 2.61



☻ Double:

1 ....

2 ....

3 ....

4 ....

5 ....

☻ Double – Draw the circles and count.	
6	○○
7	
8	

Figure 2.62

LO 1.1		LO 1.9	

Table 2.36

- Partners of 6.

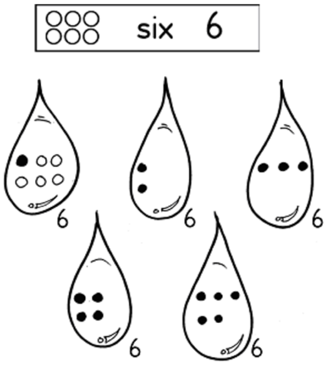
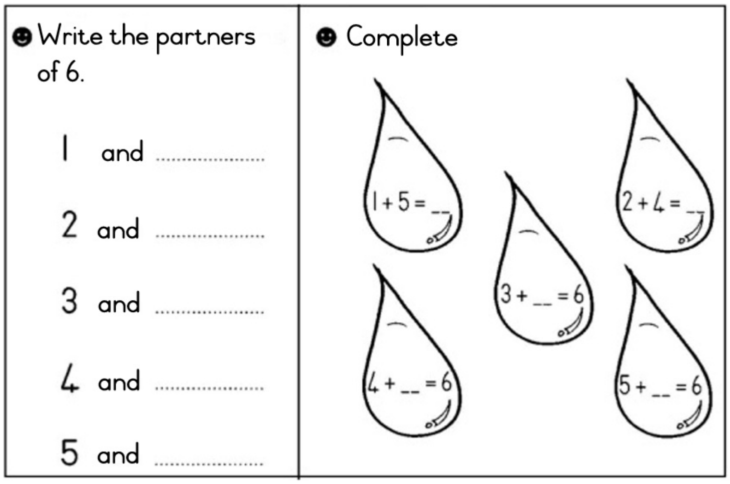


Figure 2.63



☻ Write the partners of 6.

1 and ....

2 and ....

3 and ....

4 and ....

5 and ....

☻ Complete

1 + 5 = __

2 + 4 = __

3 + __ = 6

4 + __ = 6

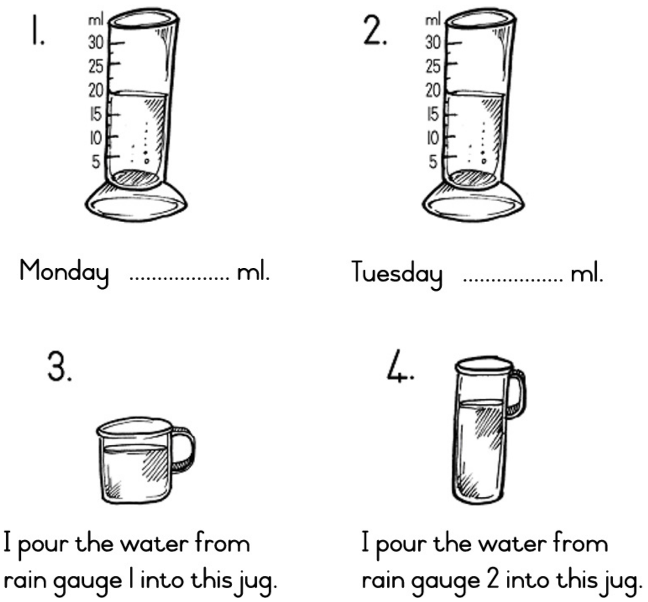
5 + __ = 6

Figure 2.64

LO 1.3		LO 1.9	

Table 2.37

- See how many ml of rain has fallen.



Monday .... ml.

Tuesday .... ml.

I pour the water from rain gauge 1 into this jug.

I pour the water from rain gauge 2 into this jug.

Figure 2.65

- Mark the answer that you think is right.
- Mug 3 has more water.
- Mug 4 has more water.
- Mugs 3 and 4 have the same amount of water.

- Find out how many teaspoonfuls of water it will take to get

20ml of water.

LO 1.2		LO 4.5	

Table 2.38

- Complete:

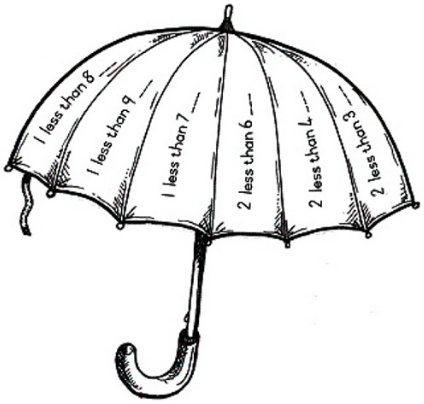


Figure 2.66

- There are 4 swallows in the tree.

Four more come and perch there as well.
Now there are.. swallows.

- Draw the tree and the swallows.
- Draw 9 circles in different ways.

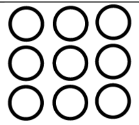
				

Table 2.39

LO 1.8		LO 1.9	

Table 2.40

- Complete:

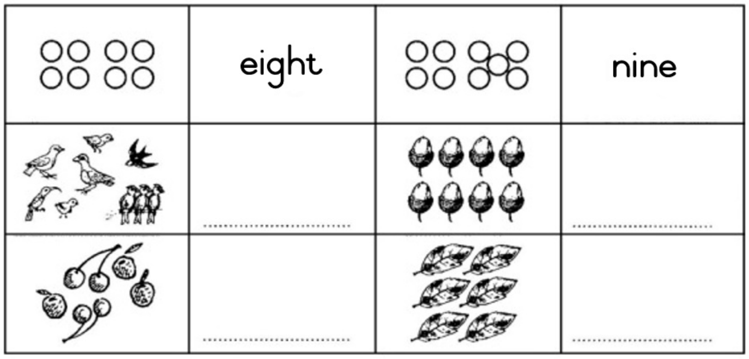


Figure 2.67

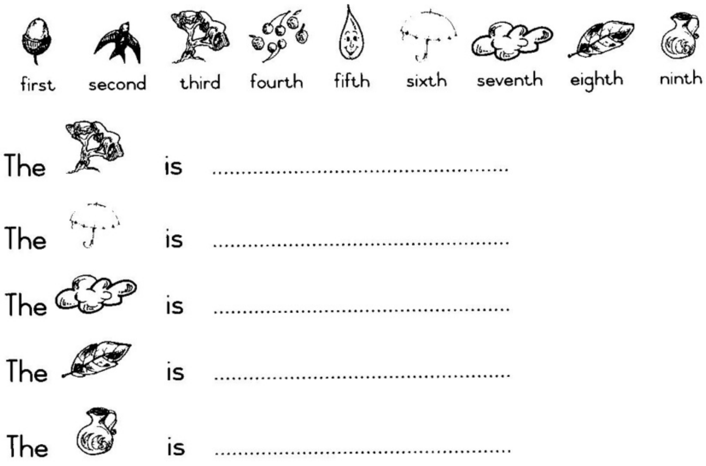

first
second
third
fourth
fifth
sixth
seventh
eighth
ninth
The is ....
The is ....
The is ....
The is ....
The is ....

Figure 2.68

- 1 Bird has wings.
- 3 Birds have .... wings.

- Draw the birds:

LO 1.2		LO 1.3		LO 1.4	

Table 2.41

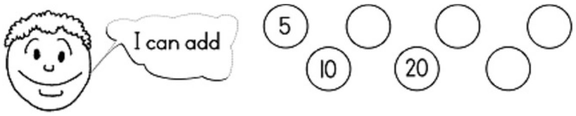


Figure 2.69

7	6	4	8	9	5	3	7	2
-2	-2	-2	-2	-2	-2	-2	-2	-2
5								

Table 2.42

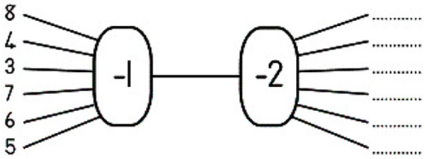


Figure 2.70

- Share the sweets equally.

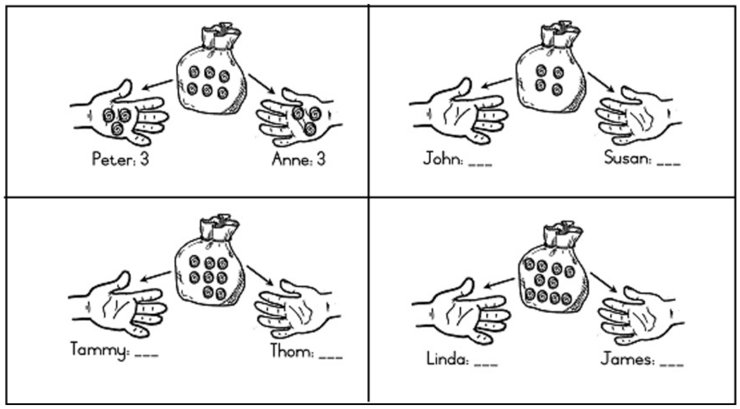


Figure 2.71

LO 1.8		LO 1.9		LO 2.2	

Table 2.43

- Halve: Divide equally. Each one gets . . .

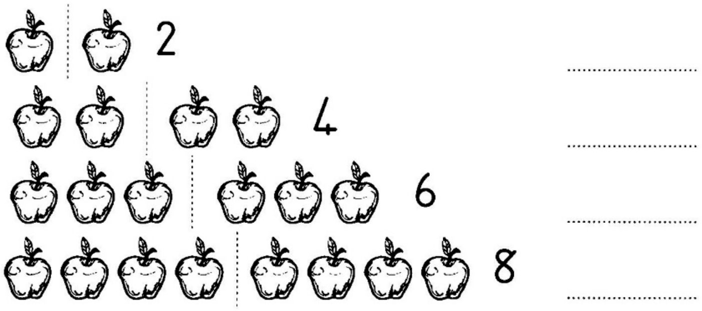


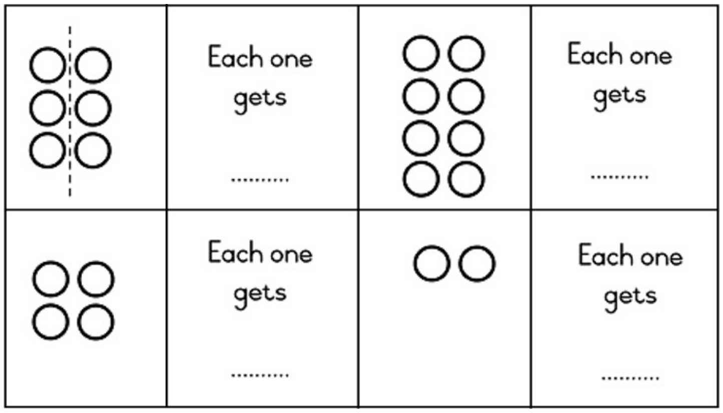
Figure 2.72

- Halve:

2	4	6	8

Table 2.44

- Now halve these as well:



○○ ○○ ○○	Each one gets ……….	○○ ○○ ○○ ○○	Each one gets ……….
○○ ○○	Each one gets ……….	○○	Each one gets ……….

Figure 2.73

LO 1.6	

Table 2.45

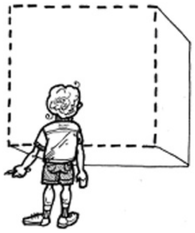
- 

Figure 2.74

Here is a block.

Stand in front of the block .

Draw all around the edges of the block.

Draw the shape here.

This shape is called a SQUARE.

Figure 2.75

- Look at the..................

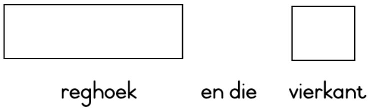


Figure 2.76

Discuss:

- Are they the same?
- How do they differ?

- Colour in the squares only.

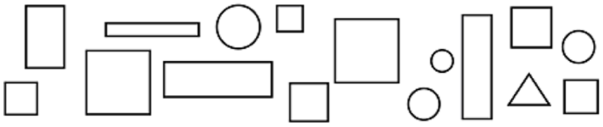


Figure 2.77

LO 3.1		LO 5.2	

Table 2.46

2.5.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assesseringstandaard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forward and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100.

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours').

Chapter 3

Term 3

3.1 Get clever with numbers - 01[1]

3.1.1 MATHEMATICS

3.1.2 Get clever with numbers

3.1.3 EDUCATOR SECTION

3.1.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
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4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
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9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and

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[1] This content is available online at <http://cnx.org/content/m31789/1.1/>.

12. develop entrepreneurial opportunities.

- Integration of Themes: Winter
- A healthy environment: Clean water.
- Inclusively: Water for everyone.
- Human Rights: Everyone's right to use the source - water.

Activities around winter help the learners to understand:

- number concept to 10;
- counting in fives, twos and threes;
- concept of +4 and –4;
- doubling and halving;
- sharing out equally;
- bonds to 8;
- word sums;
- shapes – circle, triangle, square and rectangle;
- money;
- direction;
- measuring length with thumbs;
- graphs.

3.1.5 LEARNERS SECTION

3.1.6 Content

- Count the umbrellas.
- Colour them.

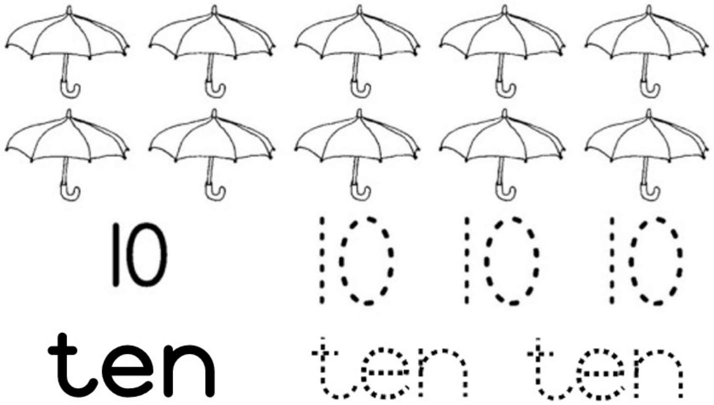
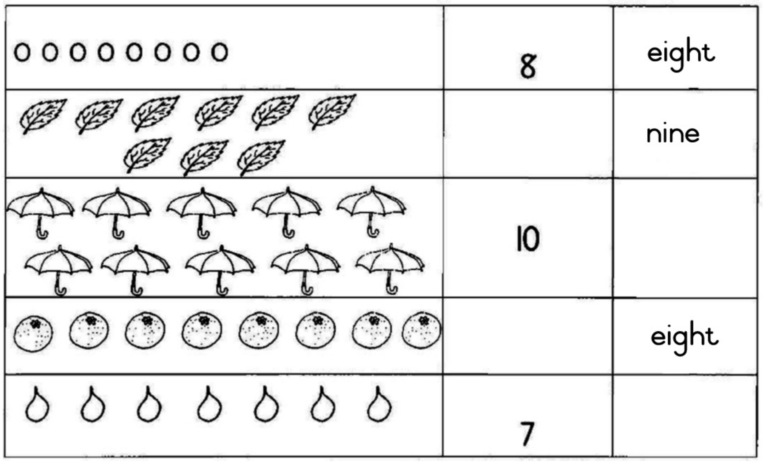


Figure 3.1

- Fill in:



	8	eight
		nine
	10	
		eight
	7	

Figure 3.2

LO 1.1		LO 1.3	

Table 3.1

- Walk to school with me:

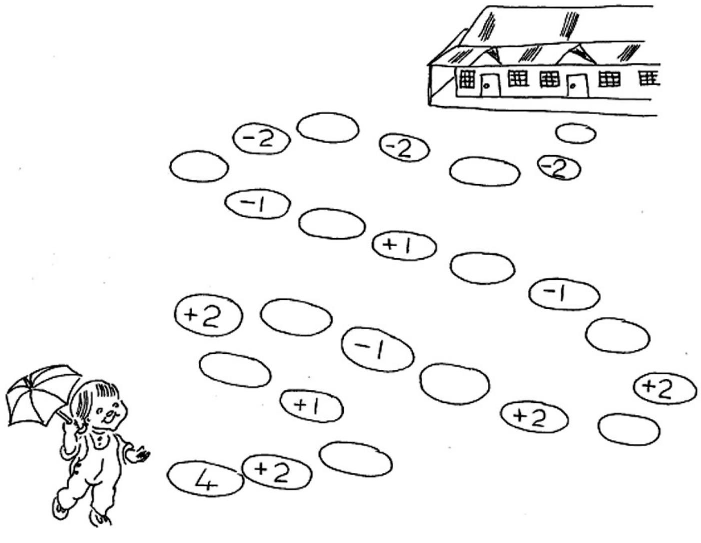


Figure 3.3

LO 1.7	

Table 3.2

- Count:

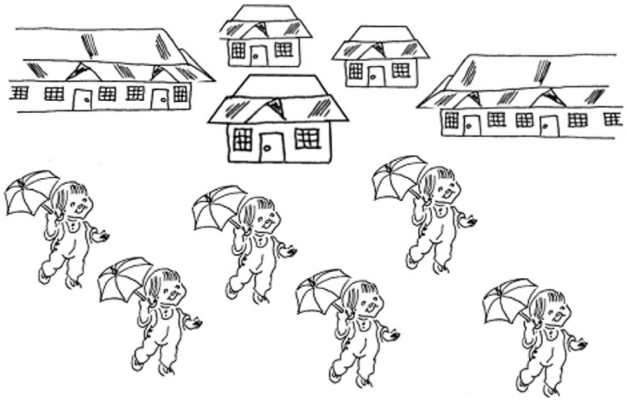
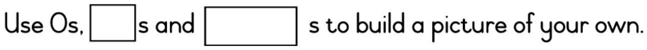


Figure 3.4

- Double the number of houses ……………………………………………………………
- Halve the number of windows ……………………………………………………………
- ………………………… umbrellas ; 2 blow away. …………umbrellas remain behind.
- ……………………………………… shoes = ……………………………………… pairs.
- Six children have …………………………………………………………………… eyes.

LO 1.7		LO 1.9	

Table 3.3



Use Os, ☐s and ▭ s to build a picture of your own.

Figure 3.5

- Draw your picture.

Figure 3.6

- The fence around the school looks like this:

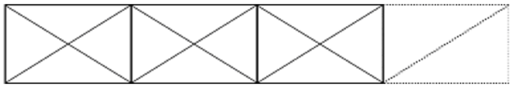


Figure 3.7

- Make it longer.

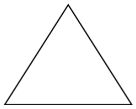


Figure 3.8

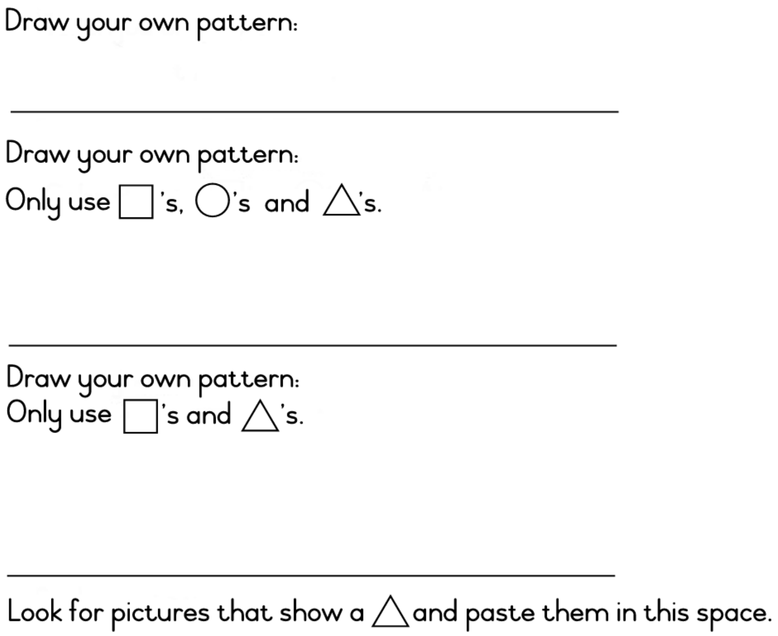
- This shape is a triangle. A triangle has .... corners.
- How many triangles can you find in the fence?

……………………………………………… triangles.

- Colour the triangles. Use a different colour for each one.

LO 2.1		LO 3.1	

Table 3.4



Draw your own pattern:

Draw your own pattern:
Only use □'s, ○'s and △'s.

Draw your own pattern:
Only use □'s and △'s.

Look for pictures that show a △ and paste them in this space.

Figure 3.9

LO 2.3		LO 3.1	

Table 3.5

- Complete the number sentences.

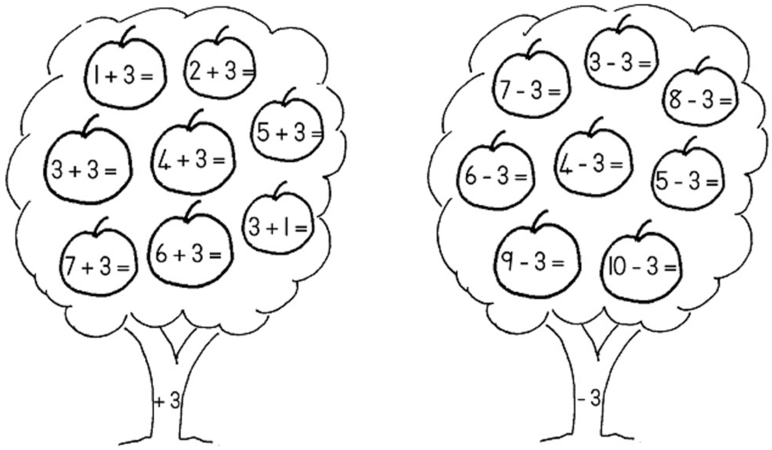


Figure 3.10

- Use counters or draw a picture. There are 7 apples on the tree. I pick 3 Now there are ………………………………………………… apples.
- You have six apples. Put an equal amount in each of two baskets. Each basket has ……………… apples.
- John picks 3 apples. Peter picks 3 apples. Charley picks 3 apples. John picks 3 apples. Peter picks 3 apples. Charley picks 3 apples. …………… apples in the basket.

LO 1.7		LO 1.9	

Table 3.6

3.1.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.1: We know this when the learner copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes);

Assessment Standard 2.3: We know this when the learner creates own patterns;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

3.2 Get clever with numbers - Module 5 - 02[2]

3.2.1 MATHEMATICS

3.2.2 Get clever with numbers

3.2.3 EDUCATOR SECTION

3.2.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Winter
- A healthy environment: Clean water.
- Inclusively: Water for everyone.
- Human Rights: Everyone's right to use the source - water.

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[2] This content is available online at <http://cnx.org/content/m31790/1.1/>.

Activities around winter help the learners to understand:

- number concept to 10;
- counting in fives, twos and threes;
- concept of +4 and –4;
- doubling and halving;
- sharing out equally;
- bonds to 8;
- word sums;
- shapes – circle, triangle, square and rectangle;
- money;
- direction;
- measuring length with thumbs;
- graphs.

3.2.5 LEARNERS SECTION

3.2.6 Content

- Friends of 7

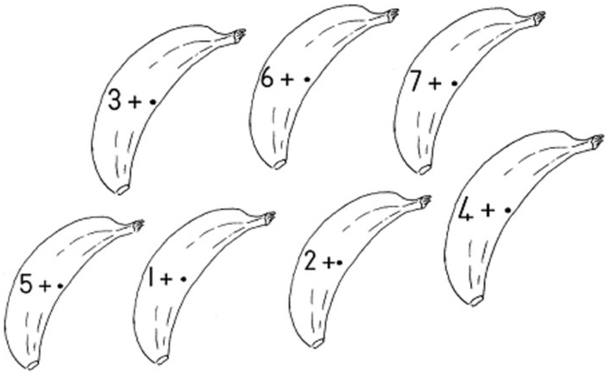


Figure 3.11

- Complete:

3 + 4 = ………………………………………
6 + 1 = ………………………………………
2 + 5 = ………………………………………
7 + 0 = ………………………………………
5 + 2 = ………………………………………
7 – 1 = ………………………………………
7 – 6 = ………………………………………
7 – 5 = ………………………………………
7 – 2 = ………………………………………
7 – 4 = ………………………………………

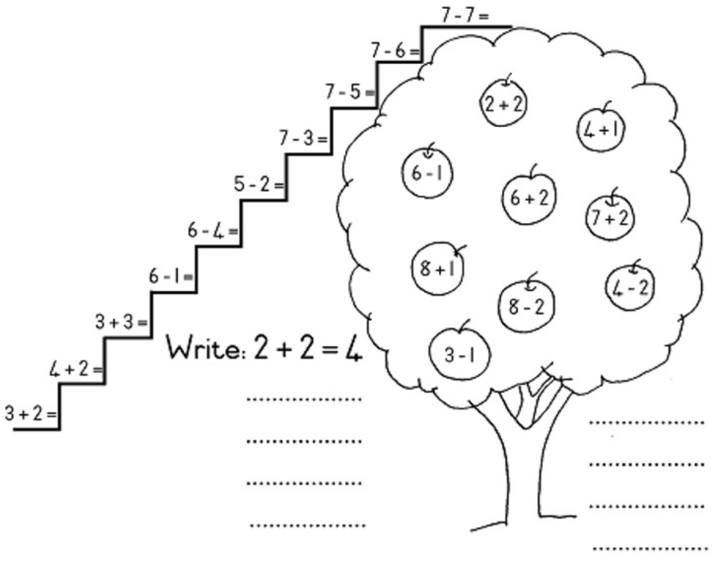
LO 1.7		LO 1.9	

Table 3.7

- Breaking up 7:

7 = 1 + 6
7 = +
7 = +
7 = +
7 = +
7 = +
7 = +

- Climb to the top of the tree. Pick the apples.



-

Figure 3.12

Complete the number sentences.

LO 1.7		LO 1.9	

Table 3.8

- Divide equally:

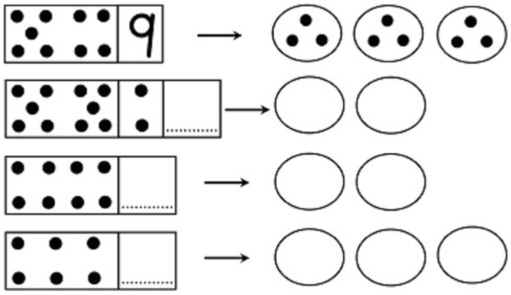


Figure 3.13

- Find the prices of 3 products in a newspaper. Paste them here.

Figure 3.14

• Which product is the most expensive?		√

continued on next page

• Which product is the cheapest?		×
• Use a pocket calculator to find out what it will cost to buy everything? • R.		

Table 3.9

LO 1.6		LO 1.5	

Table 3.10

- We eat healthy food: Ask your friends what they eat.

	carrot	pumpkin	peas	sweet potato
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Figure 3.15

- What we like more . . . .
- What we like less . . . .
- What we like least . . . .

- Write your own sums of 7:
- Use - and +

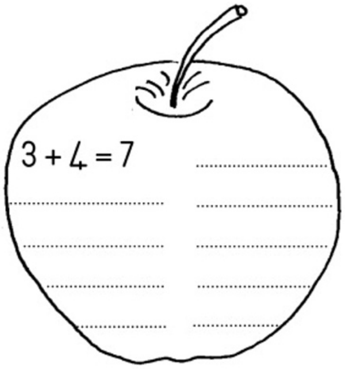


Figure 3.16

LO 5.5		LO 1.7	

Table 3.11

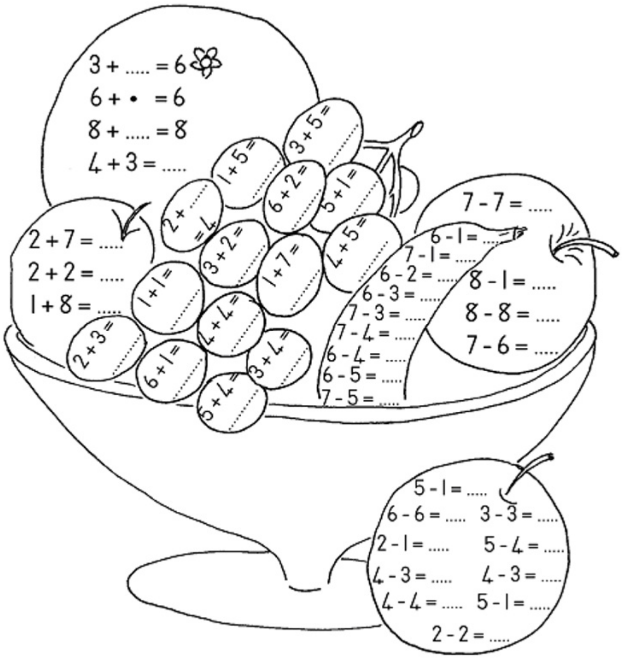


Figure 3.17

- Estimate how many sums you have to do before you can eat the fruit?

………………………………………………………… sums.

- Count the sums. . ……………………………………… sums.
- Did you estimate correctly? Yes or No.

LO 1.7	

Table 3.12

- Here you have one apple.

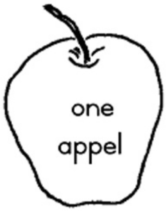


Figure 3.18

- I cut it in half.

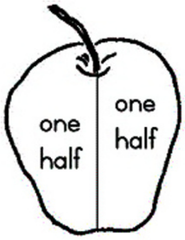


Figure 3.19

Now I have ……………………………………… halves.

- Do the same with:

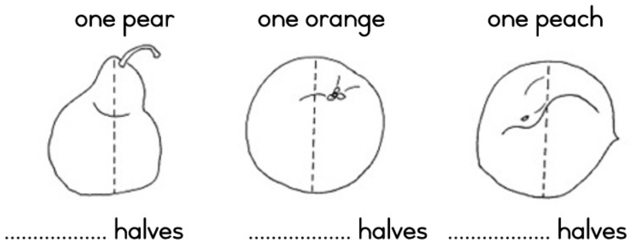

one pear
one orange
one peach
.... halves
.... halves
.... halves

Figure 3.20

- Two halves are equal to ………………………………………………... whole.

LO 1.9	

Table 3.13

- Colour these shapes and cut them out.
- Fold them in half.
- Cut along the fold.
- Paste them alongside each other.

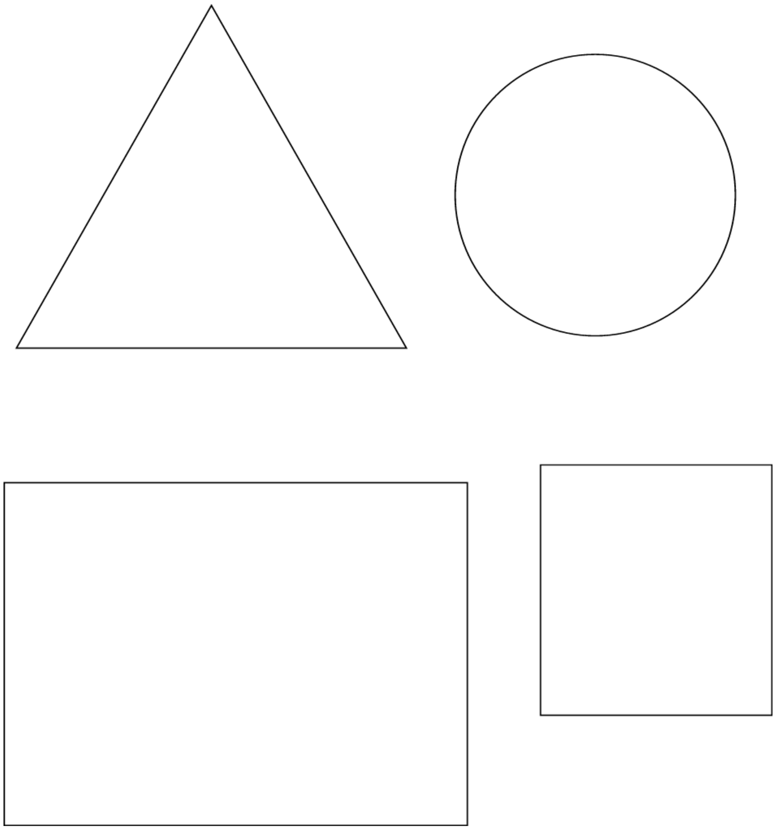


Figure 3.21

LO 1.9	

Table 3.14

- What do you notice?

………………………………………… halves are equal to one whole.

LO 1.9	

Table 3.15

- Fill in the numbers: Begin with 2, 4,

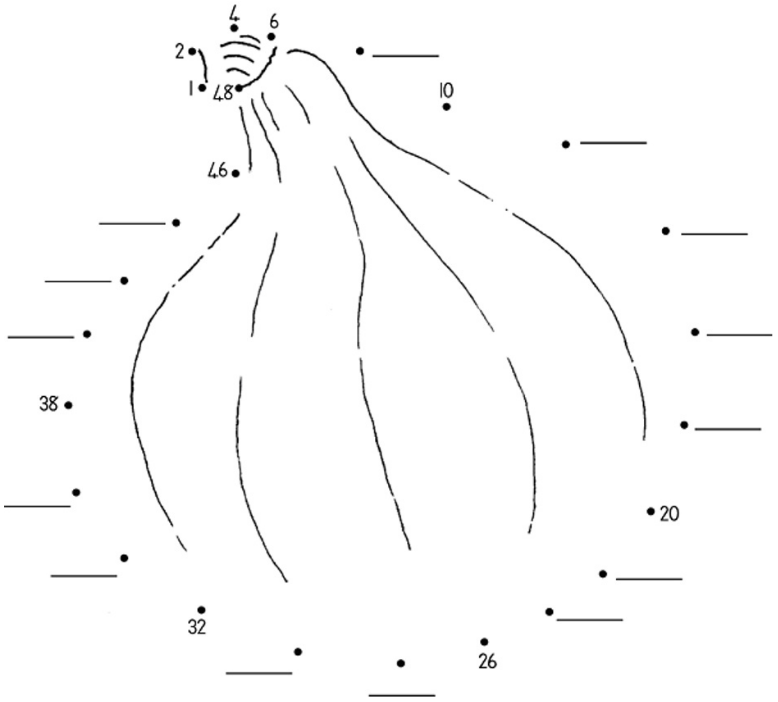


Figure 3.22

- One pumpkin costs R4,00.
- Two pumpkins cost R ……………………………...
- Three pumpkins cost R …………………………..
- How much do I pay if I buy the following?

3 apples at R5,00
1 pumpkin at R4,00
2 oranges at R1,00
The total price of everything is R ………………………………………………………..

LO 1.5		LO 2.2	

Table 3.16

3.2.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects.

3.3 Get clever with numbers - Module 5 - 03[3]

3.3.1 MATHEMATICS

3.3.2 Get clever with numbers

3.3.3 EDUCATOR SECTION

3.3.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;

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[3] This content is available online at <http://cnx.org/content/m31792/1.1/>.

9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Winter
- A healthy environment: Clean water.
- Inclusively: Water for everyone.
- Human Rights: Everyone's right to use the source - water.

Activities around winter help the learners to understand:

- number concept to 10;
- counting in fives, twos and threes;
- concept of +4 and –4;
- doubling and halving;
- sharing out equally;
- bonds to 8;
- word sums;
- shapes – circle, triangle, square and rectangle;
- money;
- direction;
- measuring length with thumbs;
- graphs.

3.3.5 LEARNERS SECTION

3.3.6 Content

- Estimate and count.

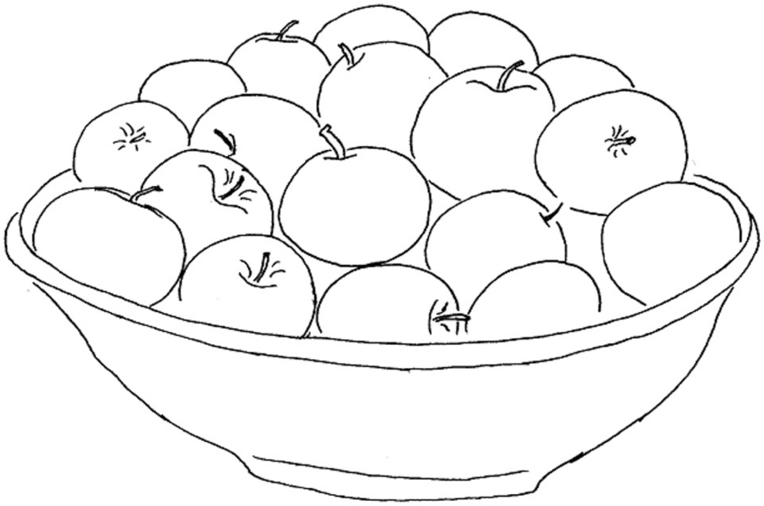


Figure 3.23

- Estimate ....
- Count...

- Halve: 10 .... 12 .... 8.................... 4 ....
- Double: 3 .... 6.................. 8.................. 4..................

LO 1.1		LO 1.9	

Table 3.17

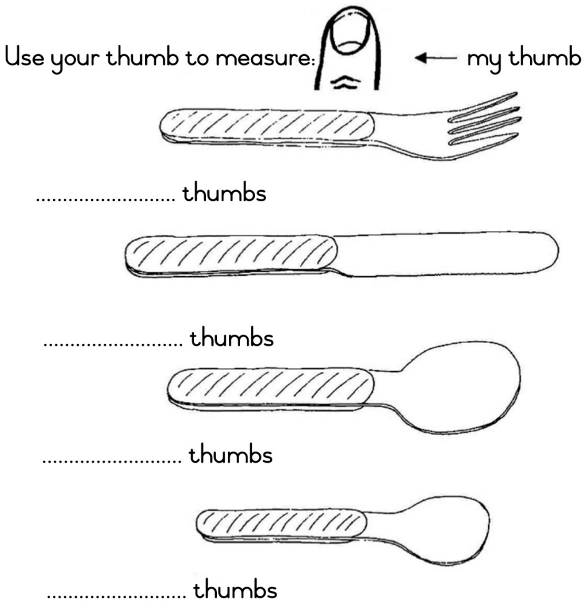

Use your thumb to measure:
my thumb
.... thumbs
.... thumbs
.... thumbs
.... thumbs

Figure 3.24

- The longest one is .... thumbs.
- The shortest is .... thumbs.

- Complete:

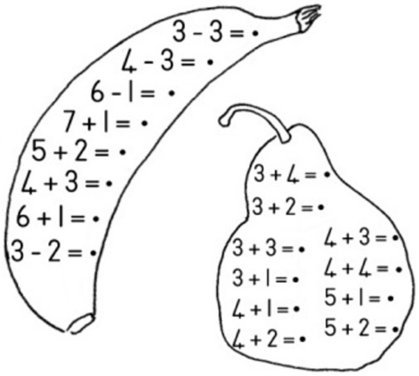


Figure 3.25

LO 1.7		LO 4.5	

Table 3.18

Figure 3.26

- Breaking up 8:

8 = 1 + 7
8 = ... + ...
8 = ... + ...
8 = ... + ...
8 = ... + ...
8 = ... + ...
8 = ... + ...

- Throw the dice for partners of 8.

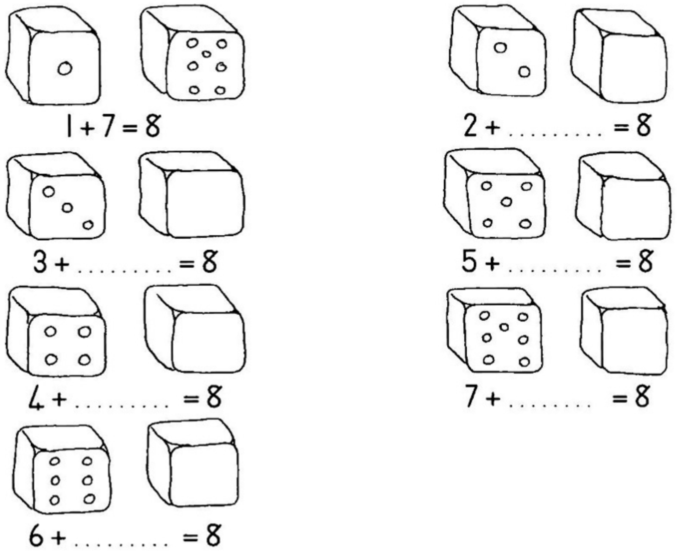


Figure 3.27

LO 1.9	

Table 3.19

- What is ……………………………………………………………………………

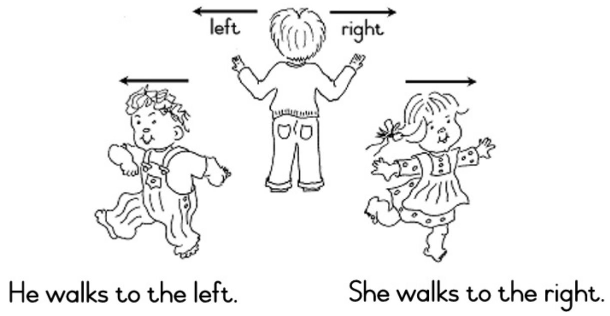
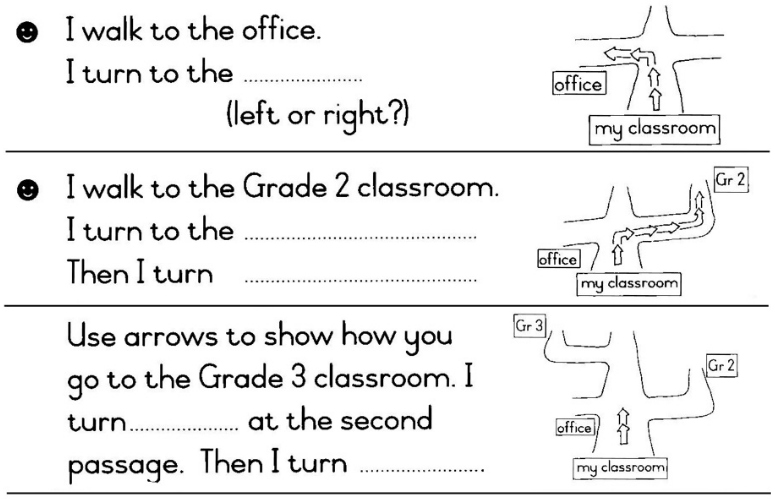

left
right
He walks to the left.
She walks to the right.

Figure 3.28



☻ I walk to the office.
I turn to the ……………………
(left or right?)

☻ I walk to the Grade 2 classroom.
I turn to the ……………………………………
Then I turn ……………………………………

Use arrows to show how you go to the Grade 3 classroom. I turn………………… at the second passage. Then I turn ……………………

office
my classroom
Gr 2
office
my classroom
Gr 3
Gr 2
office
my classroom

Figure 3.29

LO 3.6	

Table 3.20

- Take an orange:
- Peel it carefully. Estimate and count the sections.

…………………………………………… estimate.

…………………………………………… count.

- Complete the number sentences.

3 + 4 = ……………………………………
5 + 3 = ……………………………………
6 + 2 = ……………………………………
8 + 0 = ……………………………………
7 + 1 = ……………………………………
4 + 2 = ……………………………………
1 + 5 = ……………………………………
1 + 3 = ……………………………………
7 – 2 = ……………………………………
7 – 6 = ……………………………………
8 – 1 = ……………………………………
8 – 2 = ……………………………………
6 – 4 = ……………………………………
6 – 2 = ……………………………………
5 – 3 = ……………………………………
5 – 2 = ……………………………………

LO 1.7	

Table 3.21

- Count in 3s:
- Complete the sums with 8.

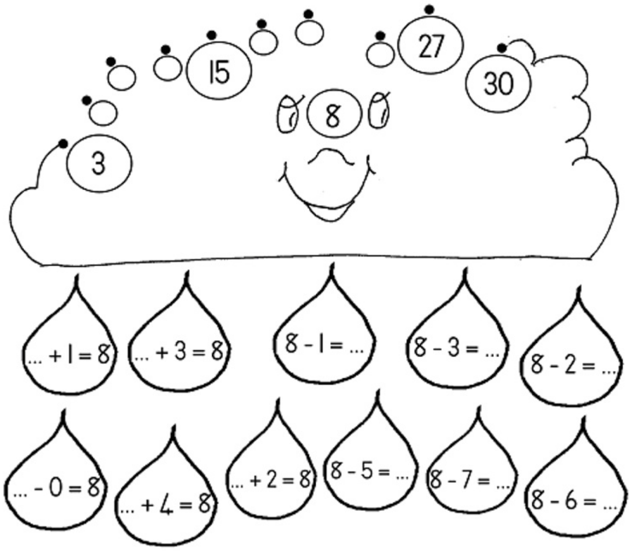


Figure 3.30

- Before 8 we have ……………………………………………………………?
- After 8 we have ……………………………………………………………?
- Between 9 and 7 we have ………………………………………………………?
- Double 8.……………………………………………………………?
- Halve 8.……………………………………………………………?

LO 1.2		LO 1.7	

Table 3.22

- Add and build a snowman.

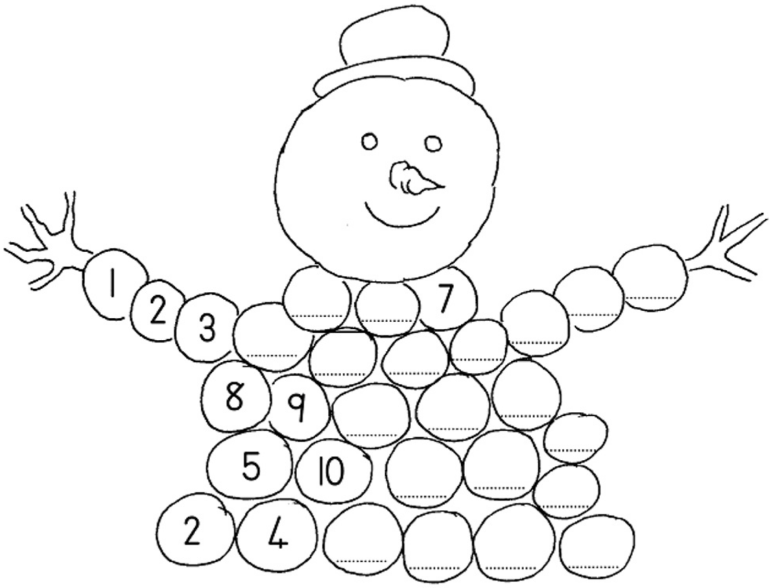


Figure 3.31

- What comes before:

……………………… 11
……………………… 12
……………………… 10
……………………… 9
……………………… 8

- What comes after:

……………………… 11
……………………… 12
……………………… 10
……………………… 7
……………………… 6

LO 1.2		LO 1.4		LO 2.2	

Table 3.23

- Quick thinking:

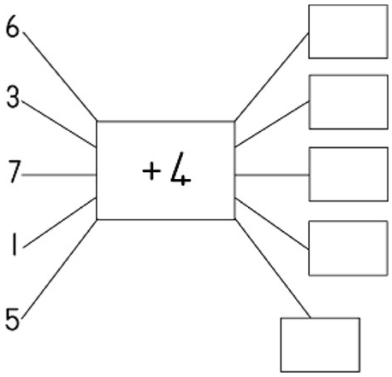


Figure 3.32

6 + 4 = ………………………………………………………
3 + 4 = ………………………………………………………
2 + 4 = ………………………………………………………
1 + 4 = ………………………………………………………
5 + 4 = ………………………………………………………

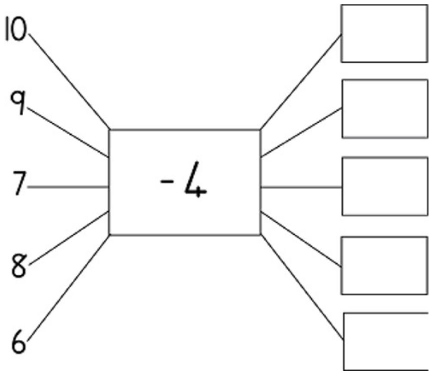


Figure 3.33

6 – 4 = ………………………………………………………
7 – 4 = ………………………………………………………
8 – 4 = ………………………………………………………
9 – 4 = ………………………………………………………
10 – 4 = ………………………………………………………

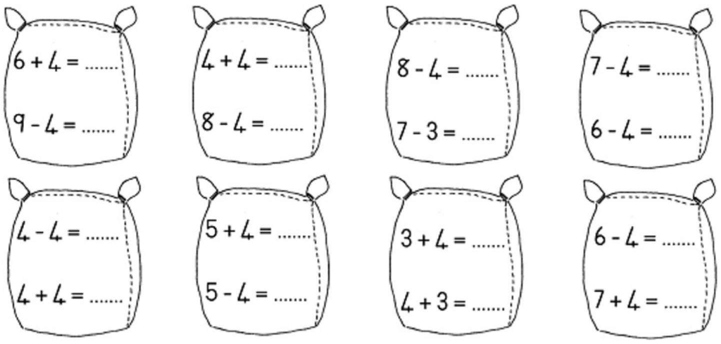


Figure 3.34

- One bag of flour weighs 2 kg.
- Alt All of the bags together weigh …………………………… kg.

LO 1.7	

Table 3.24

- We cook soup:
- One cup of soup costs 50c.
- I sell 2 cups of soup.
- I get R ………………………………………….

- I sell 4 cups of soup.
- I get R ………………………………………….

- We bake pancakes.

One pancake costs 20c.

- I sell 2 pancakes. Now I have …………………………..c.

I sell 3 more pancakes for …………………………….c.

- Now I count all my money.

Soup R ……………………………………..;
pancakes R …………………………...;
Altogether I have R …………………………………..

LO 1.5	

Table 3.25

3.3.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assesseringstandaard 1.2: We know this when the learner counts forward and backwards;

Assesseringstandaard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assesseringstandaard 3.6: We know this when the learner follows directions (alone and/or as a member of a group or team) to move or place self within the classroom or three-dimensional objects in relation to each other;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assesseringstandaard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures.

3.4 Get clever with numbers - Module 6 - 01[4]

3.4.1 MATHEMATICS

3.4.2 Get clever with numbers

3.4.3 EDUCATOR SECTION

3.4.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

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[4] This content is available online at <http://cnx.org/content/m31796/1.1/>.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Signs of spring
- A healthy environment: Learners are made aware of plant and animal life in nature and how they need to care for these. The origins of life in nature can also be discussed.
- Inclusively: Everyone needs plants and animals in order to survive. Discuss
- Human Rights: Money is necessary to buy food. People need to work to earn money. Learners can be responsible for odd jobs at home and earn their pocket money.

Activities around signs of spring help learners to understand:

- number concept to 11;
- counting in twos, threes and fives;
- counting backwards;
- repetitive addition;
- bonds to 10;
- ten and a number;
- +4 and –4;
- doubling, halving and sharing;
- train sums;
- shapes – oval;
- capacity – litre;
- measuring distance.

3.4.5 LEARNERS SECTION

3.4.6 Content

- Count the berries. ……………………………………..

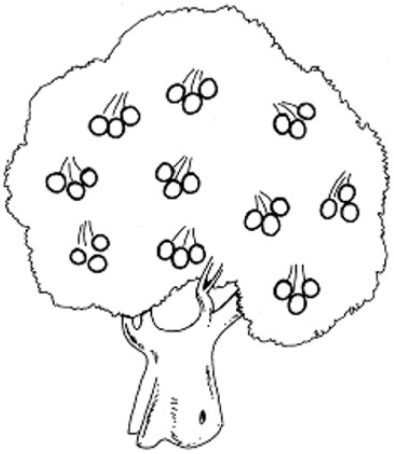


Figure 3.35

- There is a mouse in my house!
- Determine which mouse has run the furthest.
- Mark it like this: ✓.
- Determine which mouse is closest to the hole. Mark it like this: X.
- What will you use to measure the distance?

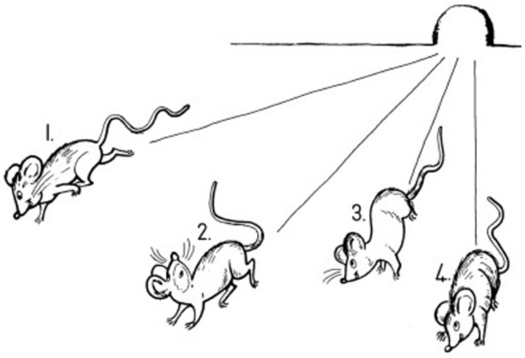


Figure 3.36

LO 1.1		LO 4.5	

Table 3.26

- Count:-

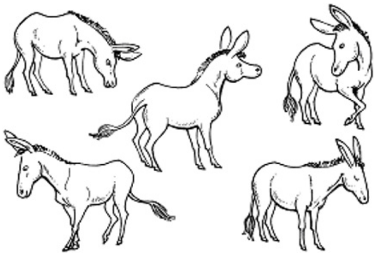


Figure 3.37

There are ……………………………………………… donkeys in the field.
There are ……………………………………………………………………… legs.
There are ………………………………………………………………………… ears.
There are ………………………………………………………………………… eyes.
There are …………………………………………………………………… tails.
Count: 4, 8, ……………………………… , 20.

- Complete:

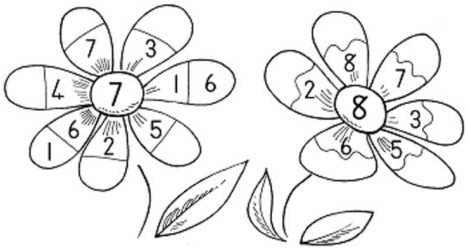


Figure 3.38

LO 1.1		LO 1.8		LO 2.2	

Table 3.27

- Complete the numbers up to 20.

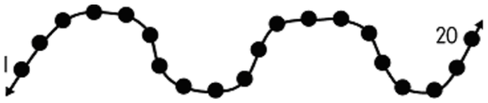


Figure 3.39

……………………………... comes before 10

……………………………... comes before 8

……………………………... comes before 13

……………………………... comes before 15

……………………………... comes before 12

……………………………... comes before 11

……………………………... comes before 20

……………………………... comes before 17

- Write the number name for:

3 three	4	10
6	7	8
1	9	3
2	5	2

Table 3.28

- Divide equally:

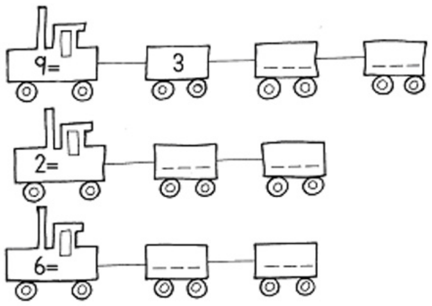


Figure 3.40

LO 1.3		LO 1.4		LO 1.6		LO 1.9	

Table 3.29

- There are 3 chickens in the run.
- Each one lays 3 eggs.
- Now there are ……………………………………………………... eggs.

- There are 12 eggs in one dozen.
- There are ……………………………………… eggs in half a dozen..

- Count backwards:

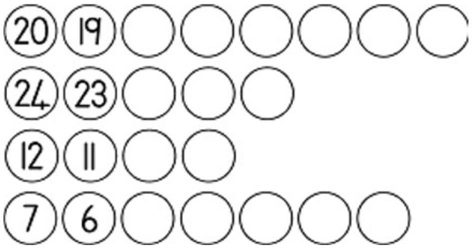


Figure 3.41

- The shape of this egg is an oval.

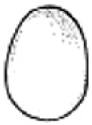


Figure 3.42

oval

- Colour in each oval.

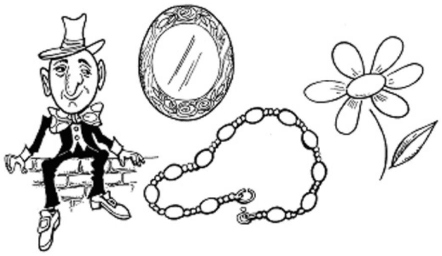
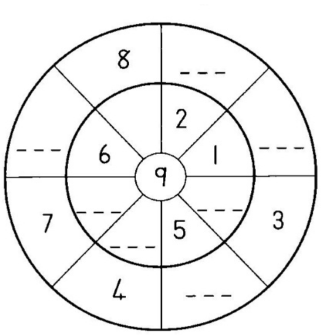


Figure 3.43

LO 1.2		LO 1.7		LO 3.1	

Table 3.30

- Complete the bonds of 9.



9 = ... + ...
9 = ... + ...
9 = ... + ...
9 = ... + ...
9 = ... + ...
9 = ... + ...
9 = ... + ...
9 = ... + ...

Figure 3.44

LO 1.8	

Table 3.31

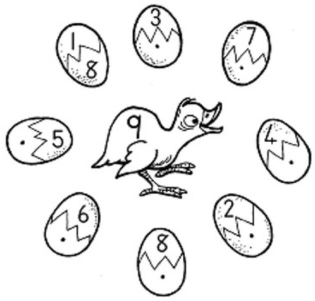


Figure 3.45

Figure 3.46

LO 1.8	

Table 3.32

- The mouse is looking for a piece of cheese:-

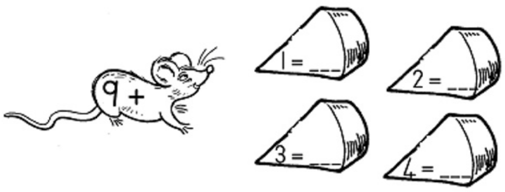


Figure 3.47

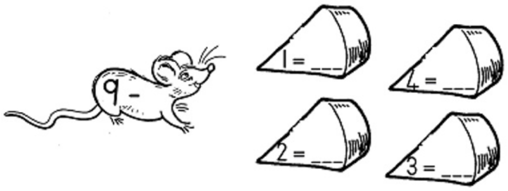


Figure 3.48

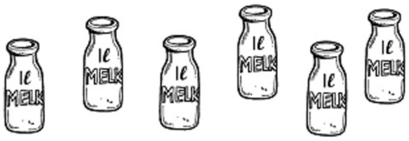


Figure 3.49

- Each bottle contains 1 ℓ of milk.

There are ……………………………...ℓ of milk altogether.

- I drink 2ℓ .

Now there are ………………………………..ℓ left.

- 1 ℓ of milk costs R2.00.

I pay R ………………………………... for 6 ℓ of milk.

LO 1.8		LO 1.5		LO 4.6	

Table 3.33

- Train sums:

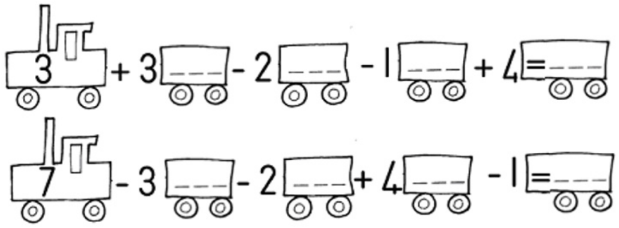
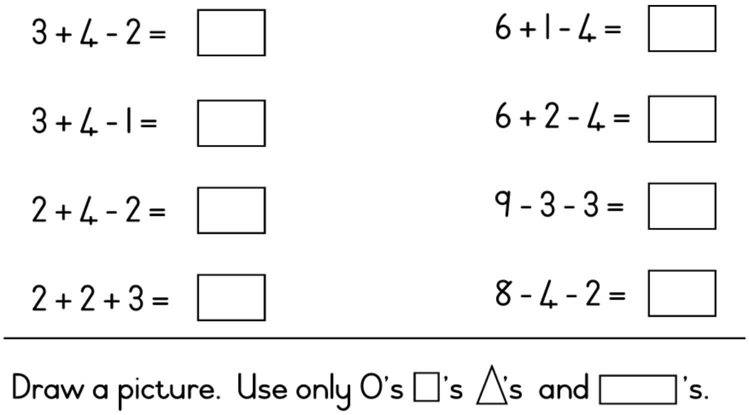


Figure 3.50



3 + 4 - 2 = ☐

3 + 4 - 1 = ☐

2 + 4 - 2 = ☐

2 + 2 + 3 = ☐

6 + 1 - 4 = ☐

6 + 2 - 4 = ☐

9 - 3 - 3 = ☐

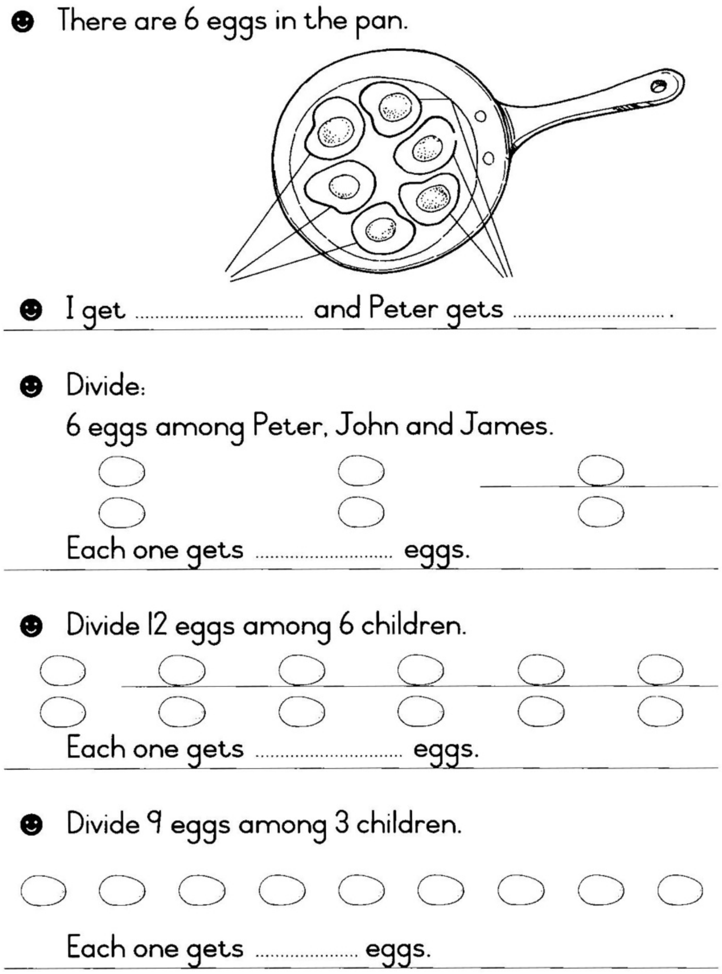
8 - 4 - 2 = ☐

Draw a picture. Use only O's □'s △'s and ▭'s.

Figure 3.51

LO 1.8		LO 3.1	

Table 3.34



☻ There are 6 eggs in the pan.

☻ I get .... and Peter gets ....

☻ Divide:
6 eggs among Peter, John and James.

Each one gets .... eggs.

☻ Divide 12 eggs among 6 children.

Each one gets .... eggs.

☻ Divide 9 eggs among 3 children.

Each one gets .... eggs.

Figure 3.52

LO 1.6	

Table 3.35

- Think quickly.

	7	8	9	6	3	2	1	4	5
+4	11								

Table 3.36

	7	8	9	10	4	5	7	6	8	11
-4										

Table 3.37

- Complete:

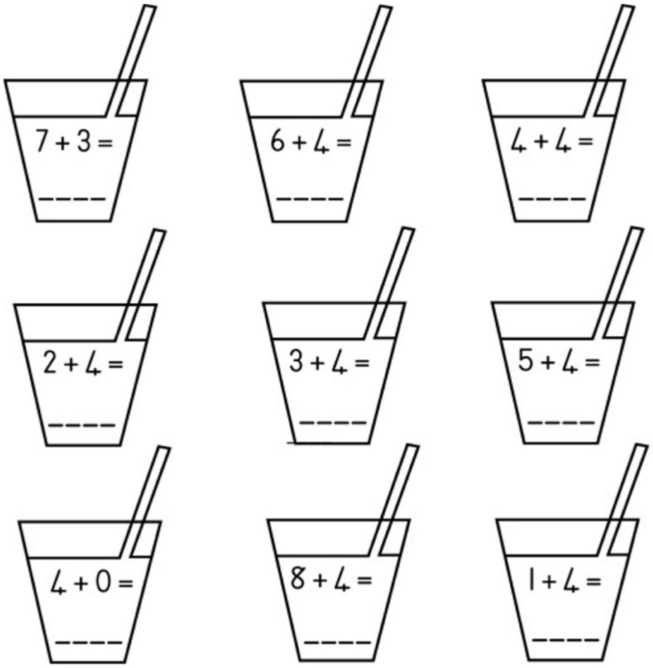


Figure 3.53

LO 1.8	

Table 3.38

3.4.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forward and backwards in;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures;

Assessment Standard 4.6: We know this when the learner is introduced to the *litre*.

3.5 Get clever with numbers - Module 6 - 02[5]

3.5.1 MATHEMATICS

3.5.2 Get clever with numbers

3.5.3 EDUCATOR SECTION

3.5.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

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[5] This content is available online at <http://cnx.org/content/m31797/1.1/>.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Signs of spring
- A healthy environment: Learners are made aware of plant and animal life in nature and how they need to care for these. The origins of life in nature can also be discussed.
- Inclusively: Everyone needs plants and animals in order to survive. Discuss
- Human Rights: Money is necessary to buy food. People need to work to earn money. Learners can be responsible for odd jobs at home and earn their pocket money.

Activities around signs of spring help learners to understand:

- number concept to 11;
- counting in twos, threes and fives;
- counting backwards;
- repetitive addition;
- bonds to 10;
- ten and a number;
- +4 and –4;
- doubling, halving and sharing;
- train sums;
- shapes – oval;
- capacity – litre;
- measuring distance.

3.5.5 LEARNERS SECTION

3.5.6 Content

- Complete:

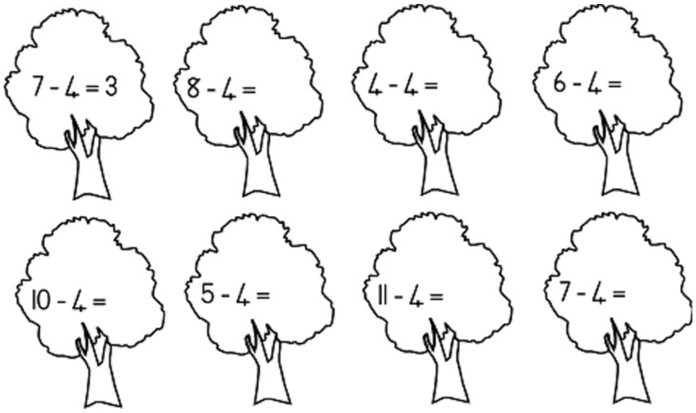

Figure 3.54

4, 8, …………, …………, 20, …………, …………, 32, …………, 40.

LO 1.7		LO 1.8		LO 2.2	

Table 3.39

- Take a 1c, 2c and 5c coin and rub them off here with your pencil.
- What do you see on all three coins?

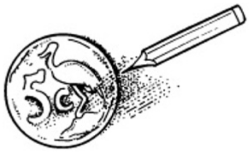

Figure 3.55

- Take a 10c, 20c and 50c coin and rub them off here with your pencil.
- What do you see on all three coins?

Figure 3.56

- In my purse I have:

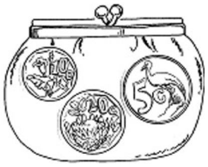

Figure 3.57

_ _ _c

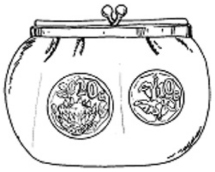

Figure 3.58

_ _ _c

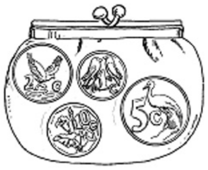

Figure 3.59

_ _ _c

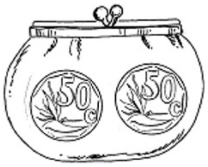

Figure 3.60

_ _ _c

LO 1.5	

Table 3.40

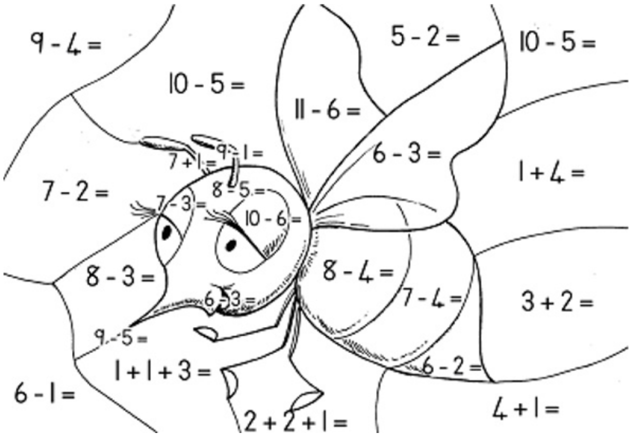

Figure 3.61

5	4	3	1	8
purple	black	yellow	red	brown

Table 3.41

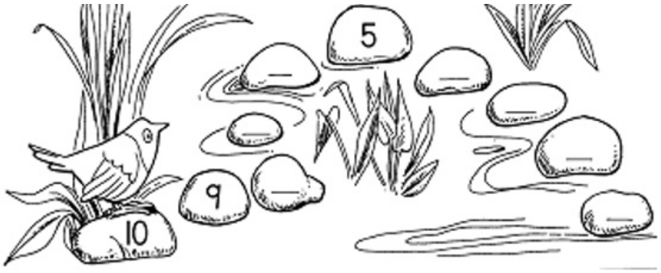

Figure 3.62

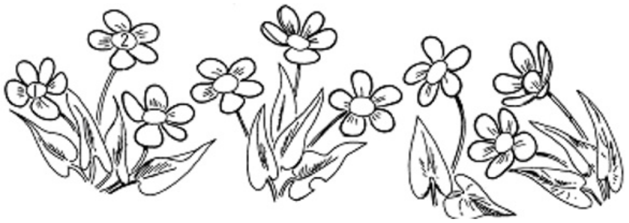

Figure 3.63

How many flowers? ………………………………………………..
Double them ………………………………………………………...

LO 1.2		LO 1.8		LO 1.9	

Table 3.42

- Double:

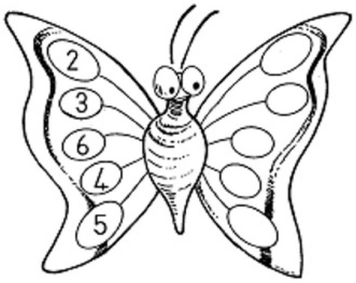

Figure 3.64

- Halve:

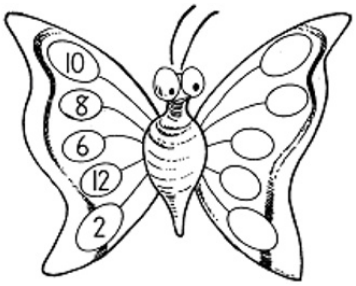

Figure 3.65

- Complete:

	2	3	6	4	7	8
+2						
+3						
+4						

Table 3.43

	6	8	9	10	7	5
-2						
-3						
-4						

Table 3.44

LO 1.8		LO 1.9	

Table 3.45

- Count in 2's.

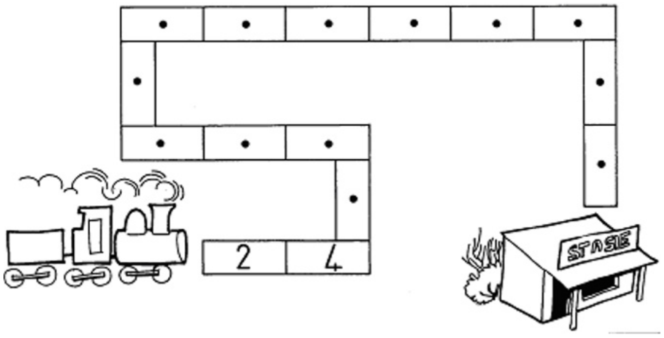

Figure 3.66

- Count:

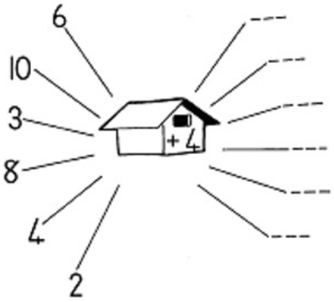

Figure 3.67

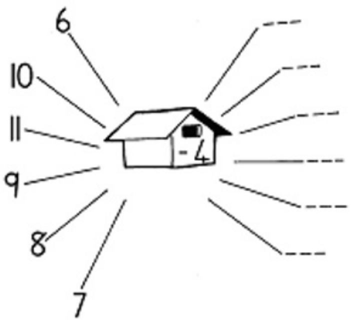

Figure 3.68

- Write the bonds of 10.

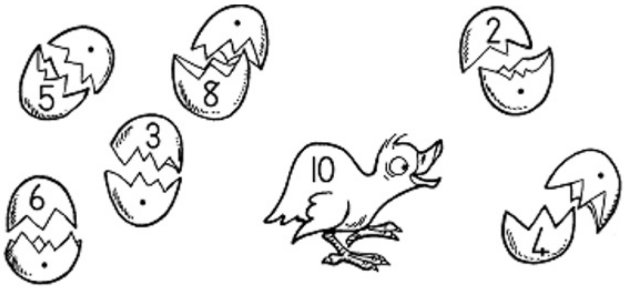

Figure 3.69

LO 1.8		LO 1.9	

Table 3.46

- Write the bonds of 10.

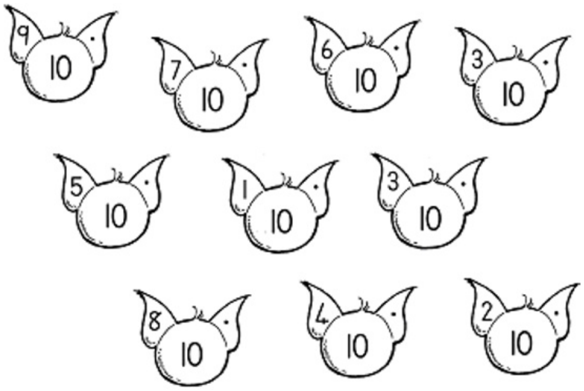

Figure 3.70

- Complete:

10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..
10 = …………………….. + ……………………..

- Count: 1, ………, 3, ………, ………, ………, 7, ………, ……, 10, 11.
- ………………… comes after ten 11 eleven 11 …………………………...

LO 1.2		LO 1.8	

Table 3.47

- In which order does the seed grow?

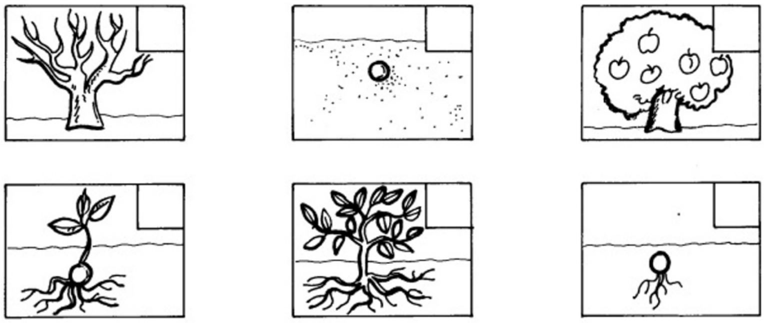

Figure 3.71

- Complete:

12 = 10 + ………………………………
13 = 10 + ………………………………
14 = 10 + ………………………………
15 = 10 + ………………………………
16 = 10 + ………………………………
17 = 10 + ………………………………
18 = 10 + ………………………………
19 = 10 + ………………………………

	1	2	3	4	5	6	7	8	9	10
+10										

Table 3.48

LO 1.9		LO 4.2	

Table 3.49

3.5.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.2: We know this when the learner counts forward and backwards in;

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Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

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Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.2: We know this when the learner compares events in terms of the length of time they take (longer, shorter, faster, slower).

3.6 Get clever with numbers - Module 6 - 03[6]

3.6.1 MATHEMATICS

3.6.2 Get clever with numbers

3.6.3 EDUCATOR SECTION

3.6.4 Memorandum

INTRODUCTION

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5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Signs of spring

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[6] This content is available online at <http://cnx.org/content/m31799/1.1/>.

- A healthy environment: Learners are made aware of plant and animal life in nature and how they need to care for these. The origins of life in nature can also be discussed.
- Inclusively: Everyone needs plants and animals in order to survive. Discuss
- Human Rights: Money is necessary to buy food. People need to work to earn money. Learners can be responsible for odd jobs at home and earn their pocket money.

Activities around signs of spring help learners to understand:

- number concept to 11;
- counting in twos, threes and fives;
- counting backwards;
- repetitive addition;
- bonds to 10;
- ten and a number;
- +4 and –4;
- doubling, halving and sharing;
- train sums;
- shapes – oval;
- capacity – litre;
- measuring distance.

3.6.5 LEARNERS SECTION

3.6.6 Content

- The story of eleven.

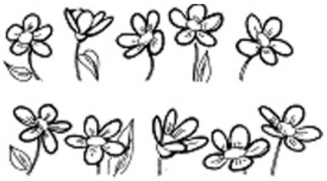
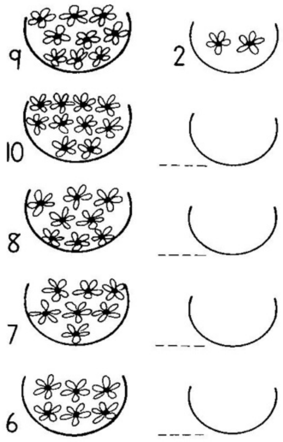


Figure 3.72

- The number name of …………………….. is eleven.
- 11 comes before …………………………….
- 11 comes after ………………………………
- 11 is one less than ……………………..
- 11 is one more than ………………………..
- 11 is between ……………… and………………



9 + 2 = 11

10 + ... = 11

8 + ... = 11

7 + ... = 11

6 + ... = 11

Figure 3.73

LO 1.4		LO 1.7	

Table 3.50

- Quick quizz:-

10 + 1 = 11
10 + 2 = ...
10 + 3 = ...
10 + 4 = ...
10 + 5 = ...
10 + 6 = ...
10 + 7 = ...
10 + 8 = ...

- Complete the bonds of 10.

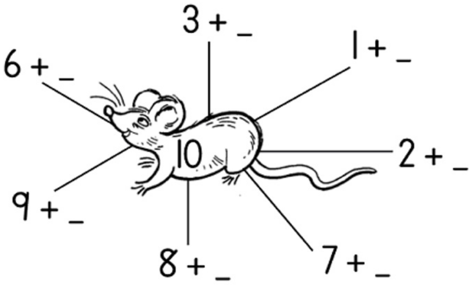


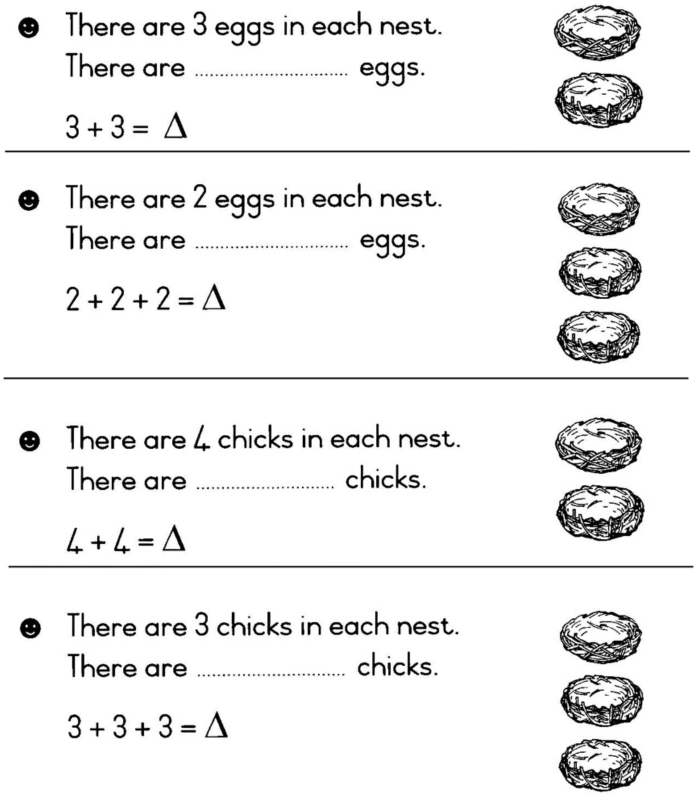
Figure 3.74

- Count:

3, 6, …………., …………., 15, …………., ………….,24, …………., …………., 30.

LO 1.7		LO 1.8		LO 2.2	

Table 3.51



☻ There are 3 eggs in each nest.
There are .... eggs.
3 + 3 = Δ

☻ There are 2 eggs in each nest.
There are .... eggs.
2 + 2 + 2 = Δ

☻ There are 4 chicks in each nest.
There are .... chicks.
4 + 4 = Δ

☻ There are 3 chicks in each nest.
There are .... chicks.
3 + 3 + 3 = Δ

Figure 3.75

4 + 4 + 4 = ……………………………….
3 + 3 + 3 = …………………………….
2 + 2 + 2 = …………………………….
5 + 5 + 5 = …………………………….
4 + 4 = ………………………………..
3 + 3 = ………………………………..
2 + 2 = ………………………………..
5 + 5 = ………………………………..
6 + 6 = ………………………………..

LO 1.7	

Table 3.52

- Think carefully! Ask your friend to check whether your sums are correct.

3 + 3 + 1 = ………………………………..
4 + 4 – 2 = ………………………………..

6 + 6 − 2 = ……………………………………
5 + 5 − 2 = ……………………………………
3 + 2 − 2 = ……………………………………
8 + 1 − 3 = ……………………………………
6 − 2 + 3 = ……………………………………
6 − 4 + 3 = ……………………………………
7 + 2 − 1 = ……………………………………
9 − 1 − 2 = ……………………………………
10 − 2 − 2 = ……………………………………
9 − 3 − 5 = ……………………………………
6 − 3 + 2 = ……………………………………
7 + 1 − 1 = ……………………………………
8 + 1 + 1 = ……………………………………
7 + 2 − 4 = ……………………………………

- Double:

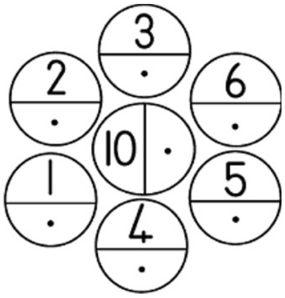


Figure 3.76

- Halve:

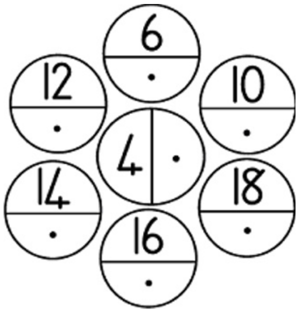


Figure 3.77

LO 1.8		LO 1.9		LO 1.10	

Table 3.53

- Count in 5's:

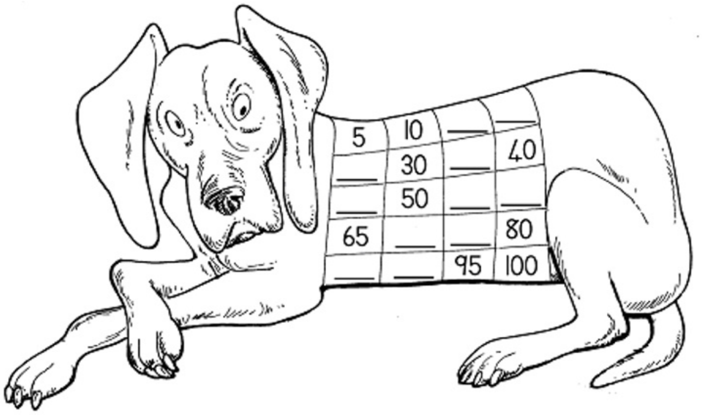


Figure 3.78

- Do the magic square of 10.

	10	
3		
	5	
	2	2

Table 3.54

- Find pictures that look like a triangle. Paste them here.

Figure 3.79

LO 1.2		LO 1.8		LO 3.1	

Table 3.55

3.6.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.2: We know this when the learner counts forward and backwards in;

Assesseringstandaard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Assessment Standard 1.10: We know this when the learner explains own solutions to problems.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

Chapter 4

Term 4

4.1 Number Fun - Module 7 - 01[1]

4.1.1 MATHEMATICS

4.1.2 Number Fun

4.1.3 EDUCATOR SECTION

4.1.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and

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[1] This content is available online at <http://cnx.org/content/m31804/1.1/>.

12. develop entrepreneurial opportunities.

- Integration of Themes: Spring
- A healthy environment: Do not destroy nests, creepy crawlies. Do not use dangerous pest controllers.
- Human Rights: Learners should be protected against poisons.

Activities around spring in nature:

- counting to 50 and to 100;
- counting back from 38;
- counting in 1's, 2's, 3's, 4's, 5's and 10's;
- number concept 1 to 17;
- bonds to 9, incidentally to 12;
- +5 and –5;
- shapes – characteristics of cubes, blocks and spheres;
- position changes shapes;
- length of shadows;
- time: days of the week, today, yesterday and tomorrow;
- wordsums with money.

Learners must listen carefully to the poem. Ensure that they can say the names of the days in the correct order. Ask questions about the activities that describe each day in the poem.

They need to cut out the names of the days of the week, ordinals and pictures on p. 2 and paste them in the correct spaces as directed on the clock on p. 3.

The completed clocks can be mounted on cardboard. String can be threaded through the holes and the clocks can be displayed in the classroom.

4.1.5 LEARNERS SECTION

4.1.6 Content

- Listen to the poem.
- Listen again and say the poem together.
- Decorate the page.

Sunday is the first day.
of every week.
of every year.
The second day is **Monday**.
wake up early so
and off to school we go.
The third day is **Tuesday**.
porridge for me and you
and some fruit juice too.
The fourth day is **Wednesday**.
I'll straighten your tie
and dish up some pie!
The fifth day is **Thursday**.
the sun will shine
the day is fine.
The sixth day is **Friday**.
there's a cake to bake
for goodness sake!

And then its the seventh day
it's **Saturday**.
no school today!
Sunday, Monday and **Tuesday**
Wednesday, Thursday and **Friday**.
SA – TUR – DAY!
G.J.M.HIP – HIP – HOORAY!

LO 4.2	

Table 4.1

4.1.6.1 My clock for the week

- Cut out.
- Paste.
- Listen again to the poem so that you will know where to paste the pictures.
- Decorate your clock with pretty patterns.

Monday
Wednesday
Friday
Saterday
Tuesday
Thursday
Sunday
first
third
second
fourth
sixth
seventh
fith

4.1.6.2 My clock for the week

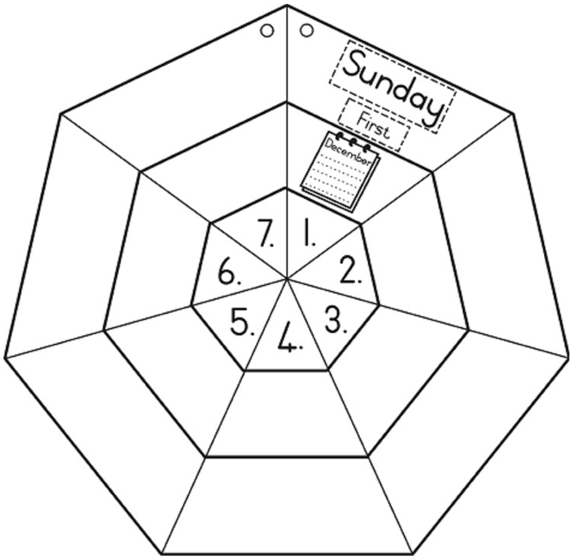

Figure 4.1

LO 4.2		LO 5.5	

Table 4.2

- Complete the following sentences.
- Let your clock of the week help you.

1. Today is...
  2. Tomorrow is...
  3. Yesterday was...
  4. .... and .... are weekend.
  5. There are... days in a week.
  6. The first day of the week is...
  7. The last day of the week is..
  8. .... comes after Monday.
  9. .... comes after Thursday.
  10. .... comes before Monday.
  11. .... comes before Thursday.

LO 4.2		LO 4.3	

Table 4.3

4.1.6.3 My clock for the day

- Read.

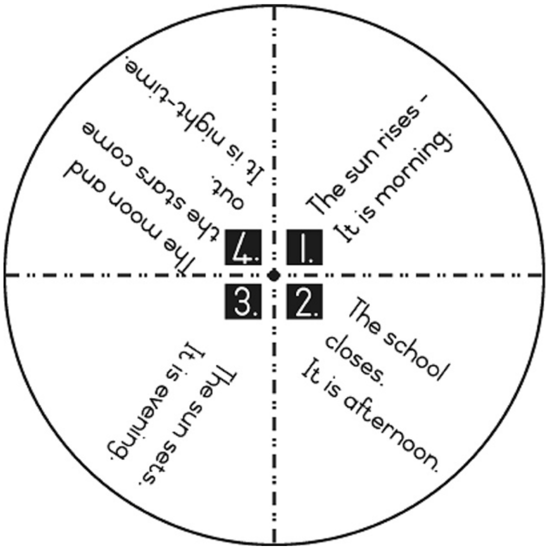
1.
The sun rises - It is morning.
2.
The school closes. It is afternoon.
3.
The sun sets. It is evening.
4.
The moon and the stars come out. It is night-time.

Figure 4.2

- Draw your own pictures to match the time of day/night.

LO 4.1	

Table 4.4

- Follow the path of the bee to every flower.
- Count the flowers.
- Write the number and number name.

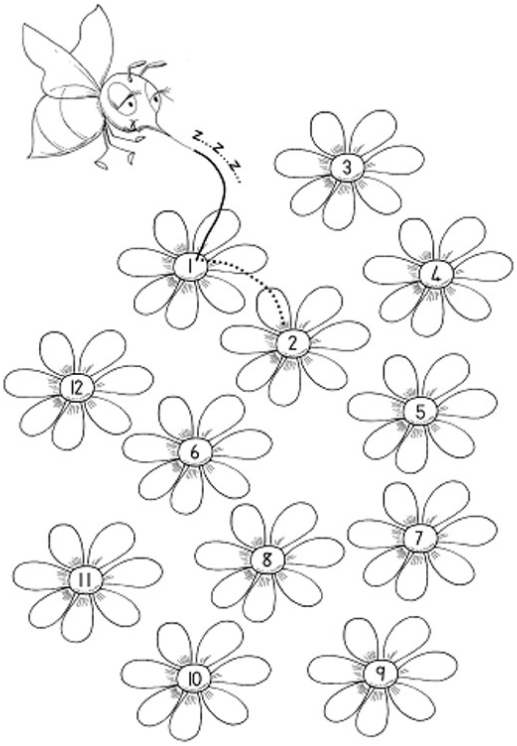

Figure 4.3

12 twelve

LO 1.1		LO 1.3	

Table 4.5

- Complete the sentences

1. 12 comes after...
2. 12 is one more than...
3. 2 more than ten is..
4. 2 less than 12 is...

- Here are.. flowers.

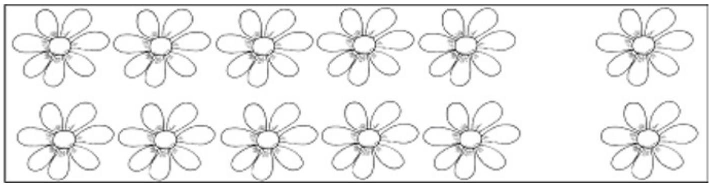

Figure 4.4

- Halve the 12 flowers.

The half of 12 is..

- Here are.. flowers.

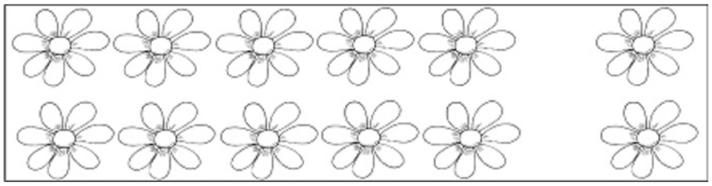

Figure 4.5

- Draw the same number. (Double.)

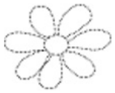

Figure 4.6

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12 doubled is..

LO 1.3		LO 1.4	

Table 4.6

- I have 12 doves.
- Here they are.

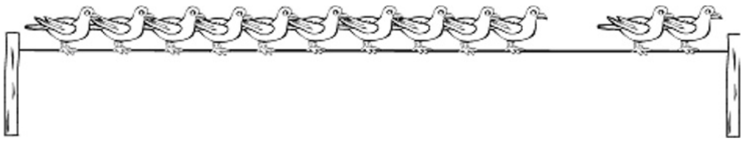

Figure 4.7

- Some fly to their nests. How many stay outside?

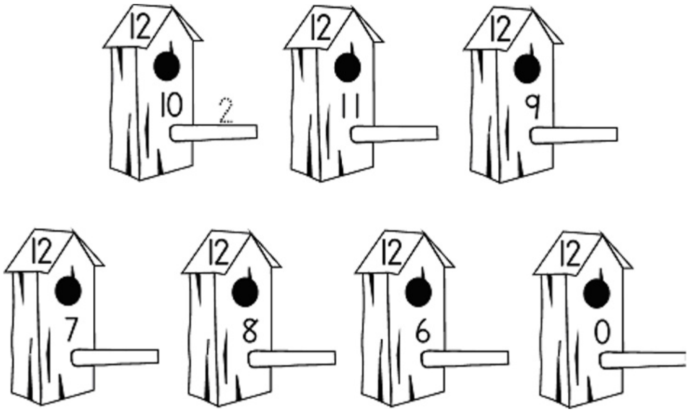

Figure 4.8

- Write the sums to make 12.

10 + 2 = 12
....
....
....
....
....
....
....

LO 1.7	

Table 4.7

- Think with dice.

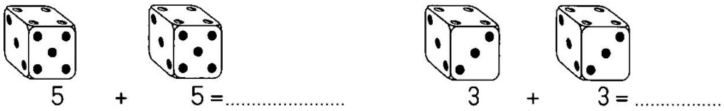

Figure 4.9

- Write the number sentences and the answers.

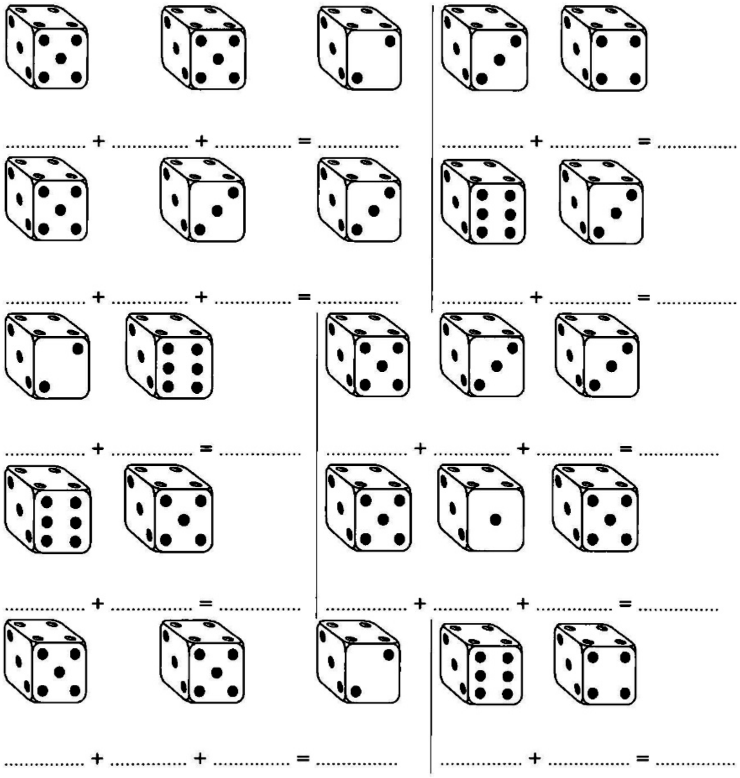

Figure 4.10

- Count:

3^{+3}, 6^{+3}, ..., ..., ..., ..., ..., ..., ..., 36

LO 1.2		LO 1.7	

Table 4.8

4.1.7 Assessment

***Learning Outcome 1:*NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.2: We know this when the learner counts forward and backwards in;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

***Learning Outcome 4:*MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.1: We know this when the learner describes the time of day using vocabulary such as ‘early’, late morning’, ‘afternoon’ and ‘night’;

Assessment Standard 4.2: We know this when the learner compares events in terms of the length of time they take (longer, shorter, faster, slower).

***Learning Outcome 5:*DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects.

4.2 Number Fun - Module 7 - 02[2]

4.2.1 MATHEMATICS

4.2.2 Number Fun

4.2.3 EDUCATOR SECTION

4.2.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

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[2] This content is available online at <http://cnx.org/content/m31825/1.1/>.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Spring
- A healthy environment: Do not destroy nests, creepy crawlies. Do not use dangerous pest controllers.
- Human Rights: Learners should be protected against poisons.

Activities around spring in nature:

- counting to 50 and to 100;
- counting back from 38;
- counting in 1's, 2's, 3's, 4's, 5's and 10's;
- number concept 1 to 17;
- bonds to 9, incidentally to 12;
- +5 and –5;
- shapes – characteristics of cubes, blocks and spheres;
- position changes shapes;
- length of shadows;
- time: days of the week, today, yesterday and tomorrow;
- wordsums with money.

4.2.5 LEARNERS SECTION

4.2.6 Content

4.2.6.1 Sums in the sun

- Work with a friend.

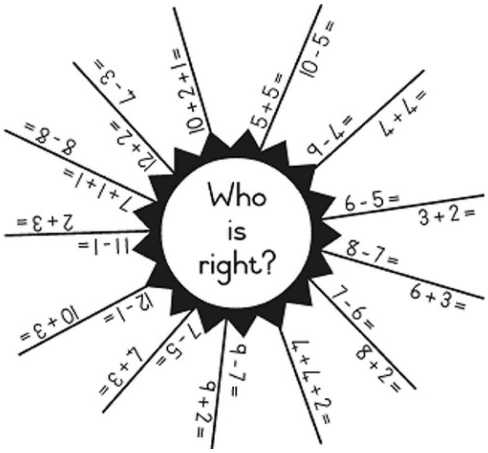

Figure 4.11

- Complete.

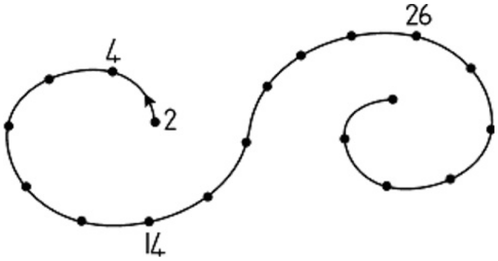

Figure 4.12

Count backwards.
38, 36, ..., ..., ..., ..., ..., ..., 22

LO 1.2		LO 1.8		LO 2.2	

Table 4.9

4.2.6.2 Build triangles with numbers

- Bonds of 8 are . . . .

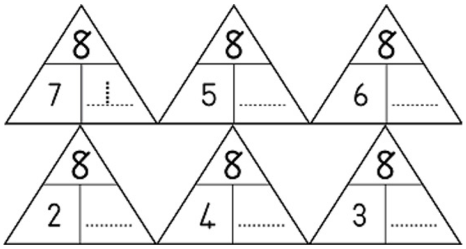

Figure 4.13

- Bonds of 9 are . . . .

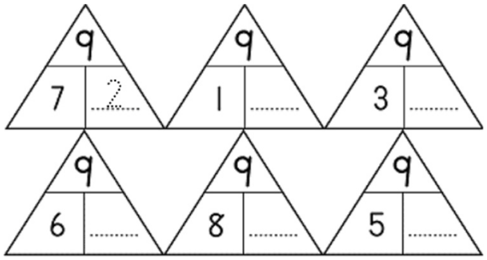

Figure 4.14

- Complete.

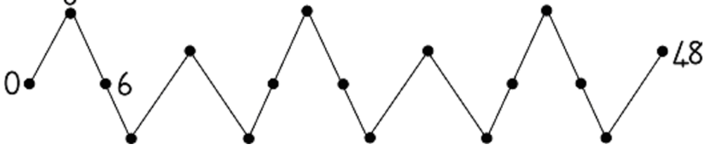

Figure 4.15

LO 1.2		LO 1.8	

Table 4.10

4.2.6.3 Mom's birthday

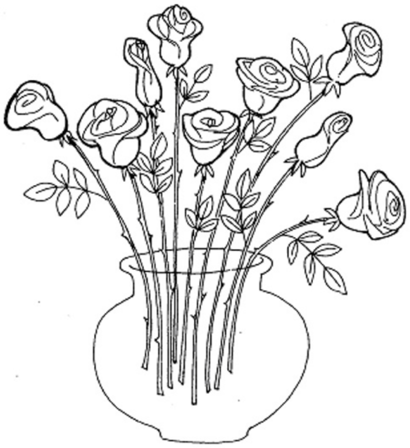

Figure 4.16

- Mom has... red roses. Two break off.

Now there are... roses left.

- She has... roses left over. She gives three away.

Now there are only... roses left.

- Would you like to draw the roses?

LO 1.9	

Table 4.11

- Work with a friend.
- Stand outside in the sun at 12 o'clock.
- See how long your shadow is.
- Ask your friend to measure the length of your shadow with his/her feet.
- He/she says, "The length of your shadow is .... feet.
- (Now let your friend stand and you measure his/her shadow.)
- Do the same one hour later.
- Now my shadow is .... (longer/shorter)
    - · Find out why?

LO 4.2	

Table 4.12

- Use the balance and measure . . . .

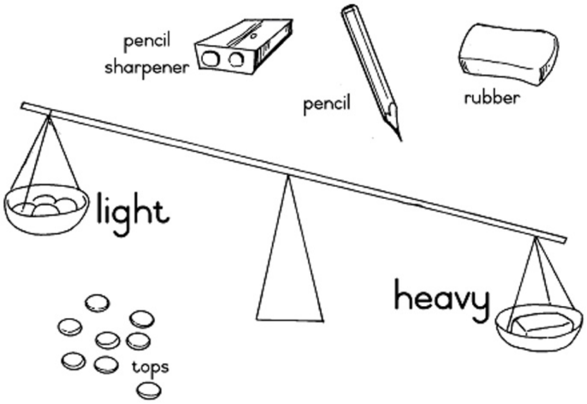

Figure 4.17

1. .... tops are heavier than my rubber.
2. 5 tops are.. than my pencil. (lighter/heavier)
3. The rubber is.. than my pencil.. (lighter/heavier)
4. My pencil is as heavy as....................................
5. My pencil sharpener is.................................. than my rubber. (lighter/heavier)
6. .... tops measure the same as my pencil. They have the same mass.

LO 4.5	

Table 4.13

- There are many flowers in my garden. 3 are long and 7 are short. There are flowers in my garden.......................................
- I picked a bunch of flowers. I gave 3 to Ann and 6 to Granny. I picked .... flowers.
- I packed a basket of apples. I ate 3 apples. 5 apples were left over. There were .... apples in the basket.

- Draw an apple:

from the top
from the side
from the bottom

LO 1.8		LO 3.5	

Table 4.14

- Everything has a shape.
- Can you see what these shapes are?

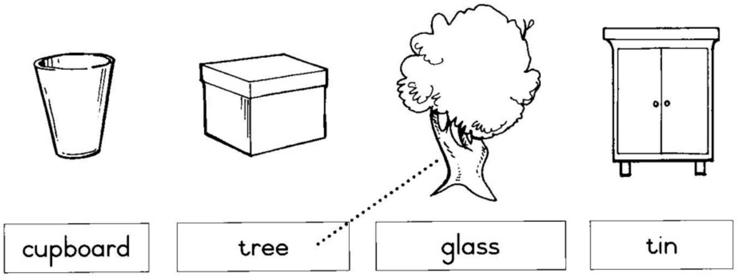

Figure 4.18

- Join the shape to its name.
- What do these look like from the top?
- Guess – will their shapes be the same?

Yes or no?

- Give a reason for your answer.
- This is what they look like from the top. Join them.

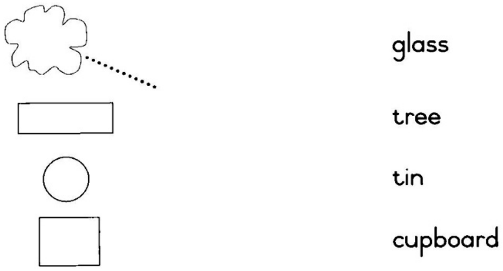

Figure 4.19

LO 3.1		LO 3.5	

Table 4.15

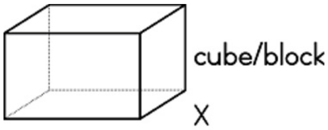

Figure 4.20

- Draw the cube/block from the top.
- Draw the cube/block from the x.
- Draw the cube/block from the bottom.
- Discuss the shapes of the cube's/block's faces which you have drawn.

- Choose one and colour it.

The faces are all the same shape.		
The faces are all different.		

Table 4.16

LO 3.1		LO 3.5	

Table 4.17

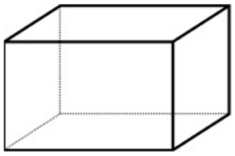

Figure 4.21

- This is a cube.
- It looks like a..............................

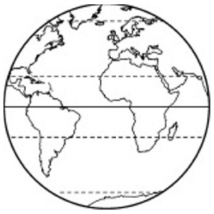

Figure 4.22

- This is a sphere.
- It looks like a...............................

- Complete.

The .... can roll.
The .... cannot roll.
The .... has corners.
The .... has no corners.

LO 3.1		LO 3.2	

Table 4.18

- Draw:

a big cube
a small cube
a big sphere
a small sphere

LO 3.1	

Table 4.19

4.2.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.2: We know this when the learner counts forward and backwards in;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

Assessment Standard 3.2: We know this when the learner describes, sorts and compares physical two-dimensional shapes and three-dimensional objects;

Assessment Standard 3.5: We know this when the learner describes one three-dimensional object in relation to another (e.g. 'in front' or 'behind');

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.2: We know this when the learner compares events in terms of the length of time they take (longer, shorter, faster, slower).

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures.

4.3 Number Fun - Module 7 - 03[3]

4.3.1 MATHEMATICS

4.3.2 Number Fun

4.3.3 EDUCATOR SECTION

4.3.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

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3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;

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[3] This content is available online at <http://cnx.org/content/m31827/1.1/>.

7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

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- A healthy environment: Do not destroy nests, creepy crawlies. Do not use dangerous pest controllers.
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Activities around spring in nature:

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- counting back from 38;
- counting in 1's, 2's, 3's, 4's, 5's and 10's;
- number concept 1 to 17;
- bonds to 9, incidentally to 12;
- +5 and –5;
- shapes – characteristics of cubes, blocks and spheres;
- position changes shapes;
- length of shadows;
- time: days of the week, today, yesterday and tomorrow;
- wordsums with money.

4.3.5 LEARNERS SECTION

4.3.6 Content

- Colour all the same shapes in the same colour.

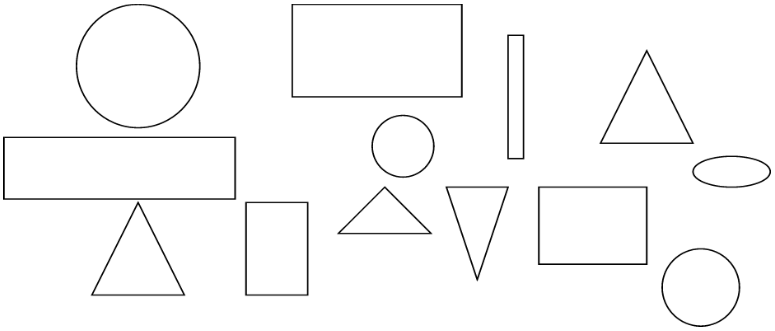


Figure 4.23

- Complete.

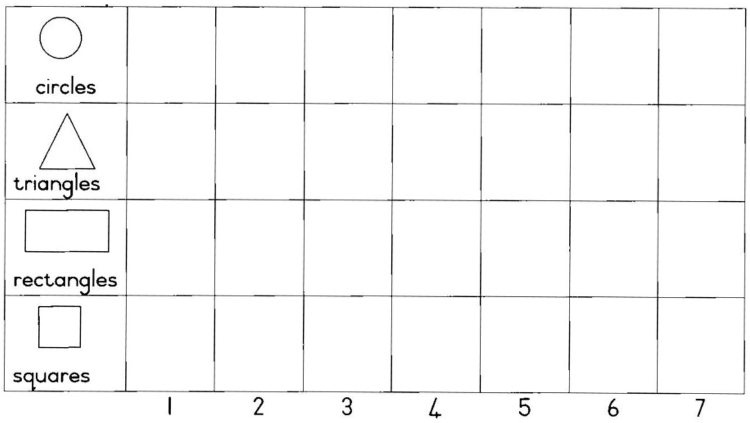


Figure 4.24

There are more... than ....

There are less.. than ....

LO 3.1		LO 5.2		LO 5.5		LO 5.6	

Table 4.20

- Complete.

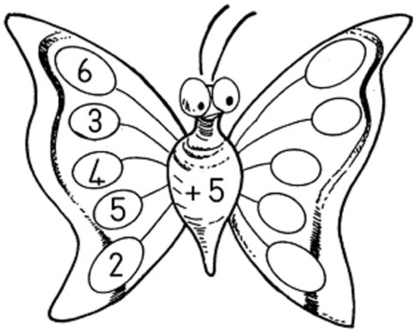


Figure 4.25

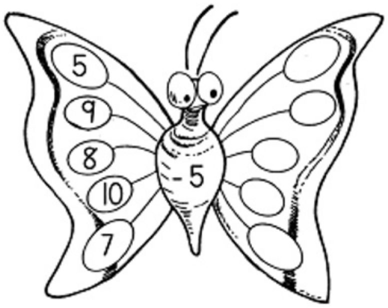


Figure 4.26

- Draw 50 butterflies.
- Count the butterflies.

LO 1.1		LO 1.8	

Table 4.21

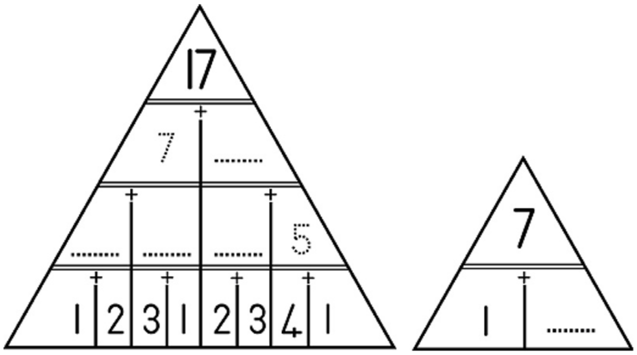


Figure 4.27

- Tower 7 is... (high or low)
- Tower 17 is... (high or low
- Tower 7 is... than tower 17.. (higher or lower)
- Tower 17 is... than tower 7.. (higher or lower)
- Complete both towers. The "+" sign will help you.
- Choose one and colour in.

Maklik!
Moeilik!
Oeps!

Figure 4.28

LO 4.5	

Table 4.22

4.3.6.1 A mother and her babies

- Count the babies.

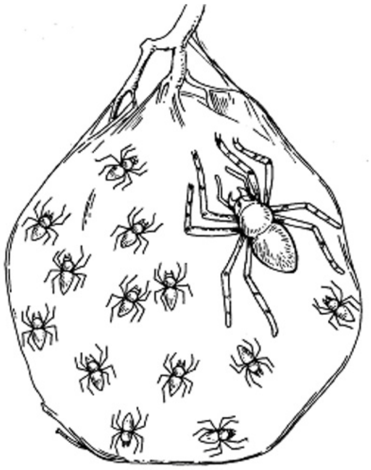


Figure 4.29

13 thirteen...

- There are.................... There are

Count the babies.

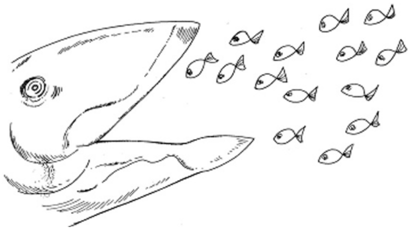


Figure 4.30

---

14 fourteen

- There are .... fish.

LO 1.1		LO 1.3	

Table 4.23

- Write your own number sentence.
- Write them under the nests which have their answers.
- Only use these numbers and signs.
- Tell a friend how you did your sums.

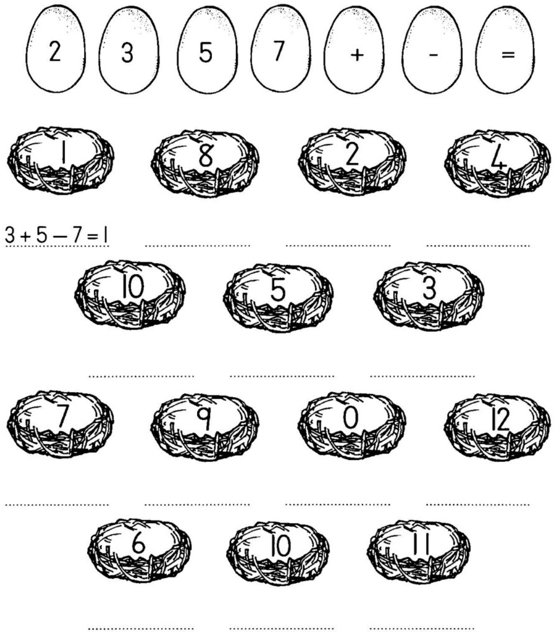


Figure 4.31

LO 1.8	

Table 4.24

- Complete:

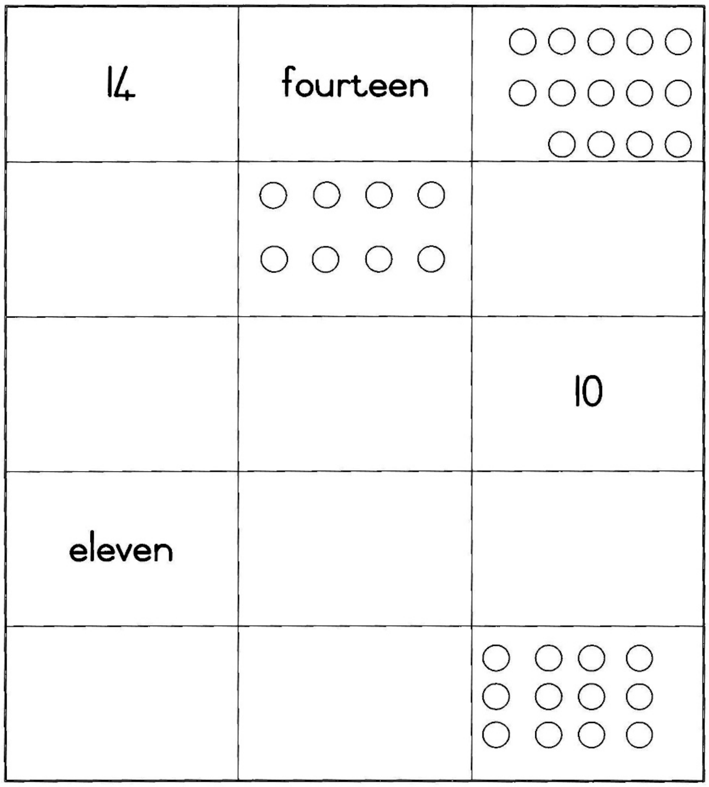
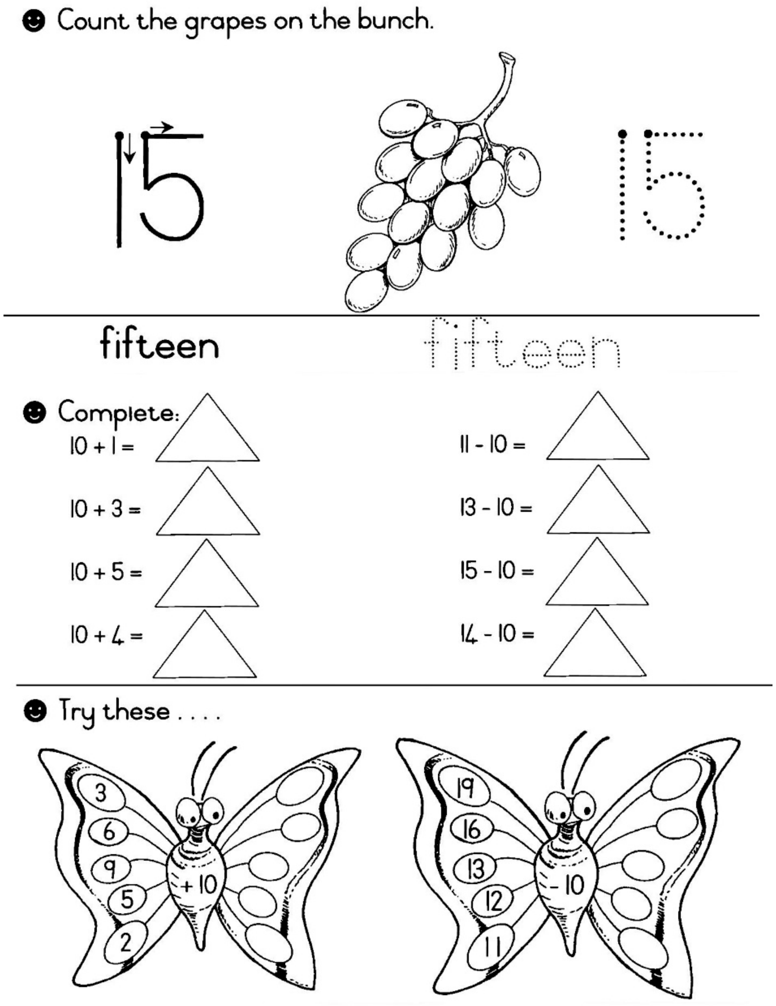


Figure 4.32

LO 1.3	

Table 4.25



Count the grapes on the bunch.

Complete:

10 + 1 =

10 + 3 =

10 + 5 =

10 + 4 =

11 - 10 =

13 - 10 =

15 - 10 =

14 - 10 =

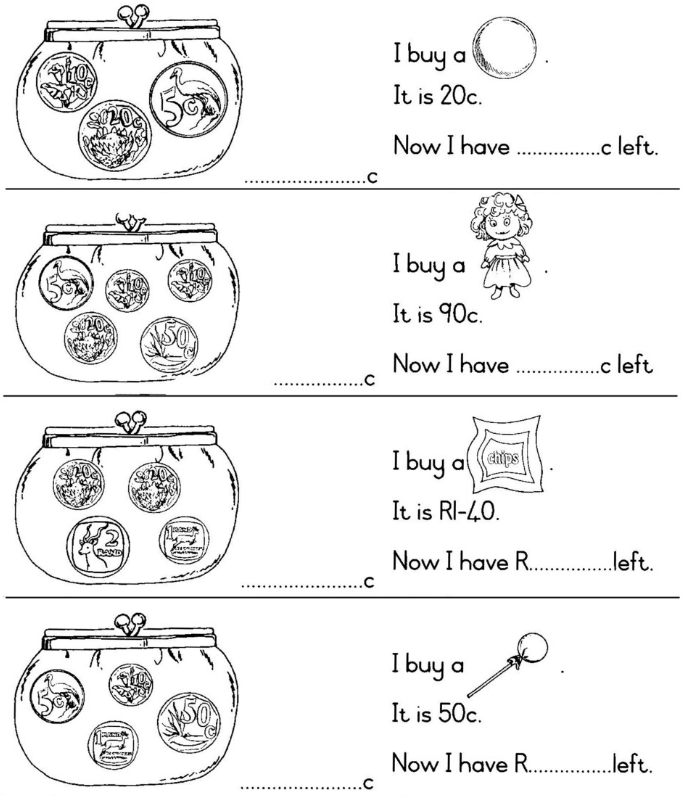
Try these . . . .

Figure 4.33

LO 1.1		LO 1.3		LO 1.7	

Table 4.26

- In my purse I have:



........................c

I buy a .

It is 20c.

Now I have ....c left.

.................c

I buy a .

It is 90c.

Now I have ....c left

........................c

I buy a .

It is R1-40.

Now I have R................left.

........................c

I buy a .

It is 50c.

Now I have R................left.

Figure 4.34

LO 1.5	

Table 4.27

- Divide these flowers equally into the vases.
- Tell a friend how you did this.

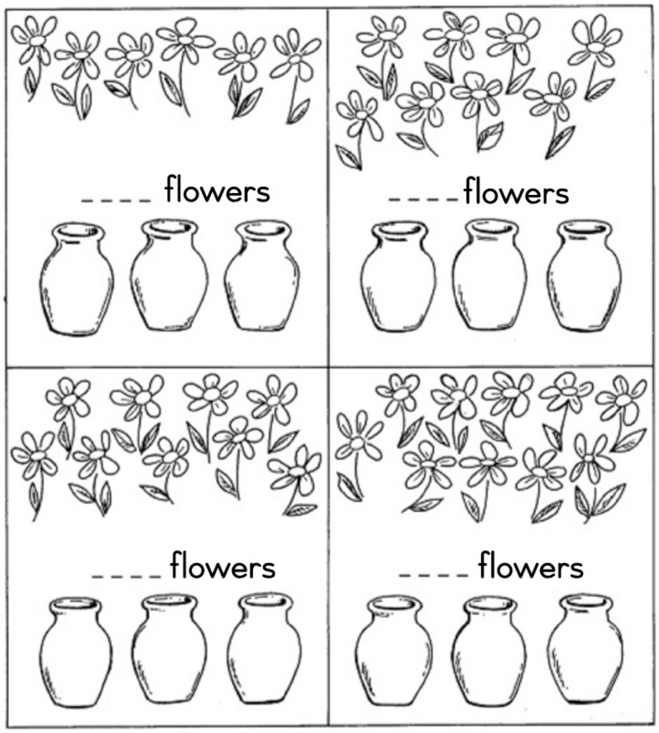


Figure 4.35

LO 1.6	

Table 4.28

- Draw 16 spiders.
- Draw seventeen ants.

LO 1.1		LO 1.3	

Table 4.29

4.3.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures.

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.2: We know this when the learner sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.');

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects.

4.4 Number Fun - Module 7 - 04[4]

4.4.1 MATHEMATICS

4.4.2 Number Fun

4.4.3 EDUCATOR SECTION

4.4.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

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[4] This content is available online at <http://cnx.org/content/m31828/1.1/>.

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Spring
- A healthy environment: Do not destroy nests, creepy crawlies. Do not use dangerous pest controllers.
- Human Rights: Learners should be protected against poisons.

Activities around spring in nature:

- counting to 50 and to 100;
- counting back from 38;
- counting in 1's, 2's, 3's, 4's, 5's and 10's;
- number concept 1 to 17;
- bonds to 9, incidentally to 12;
- +5 and –5;
- shapes – characteristics of cubes, blocks and spheres;
- position changes shapes;
- length of shadows;
- time: days of the week, today, yesterday and tomorrow;
- wordsums with money.

4.4.5 LEARNERS SECTION

4.4.6 Content

	One more		One less
11	....	11	....
13	....	13	....
15	16 sixteen	15	....
14	....	14	....
16	.... seventeen	16	....
12	....	12	....

Table 4.30

LO 1.3	

Table 4.31

- Complete the numbers along the footpath.

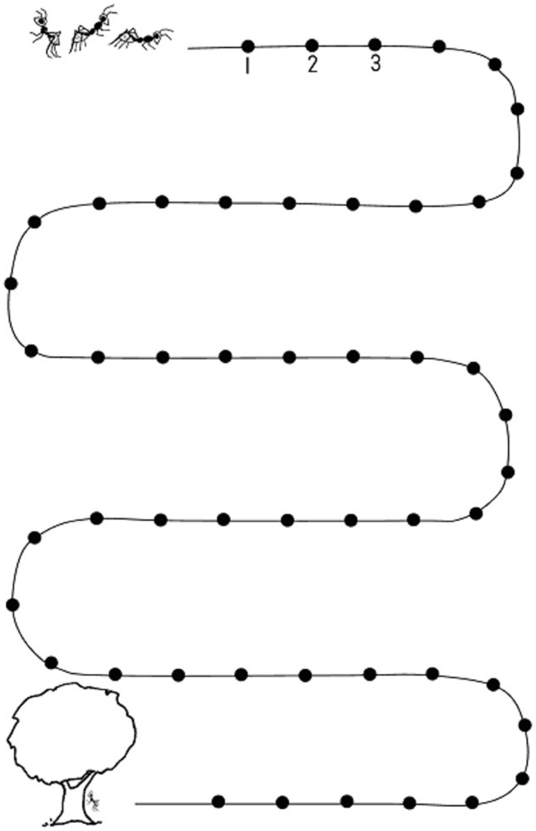

Figure 4.36

LO 1.2		LO 2.2	

Table 4.32

- Complete the pictures. Begin with the tree and then do the apples.

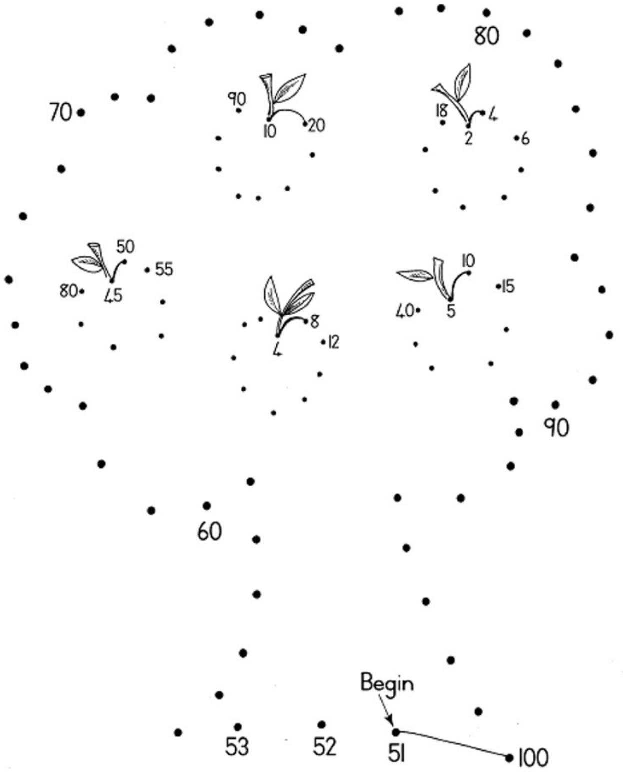

Figure 4.37

LO 1.2		LO 2.2	

Table 4.33

- Colour in the patterns on Thandi and Themba's mugs.

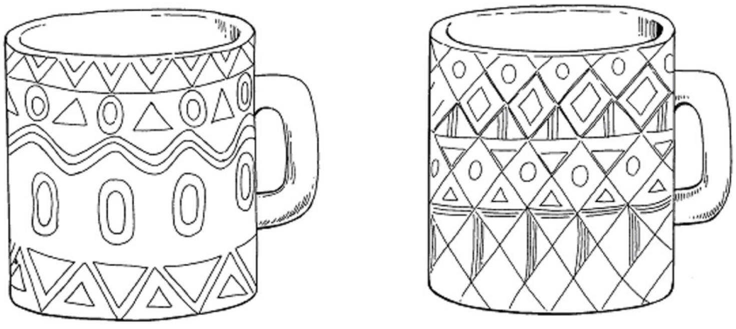

Figure 4.38

- Design your own ethnic patterns for your own mug.

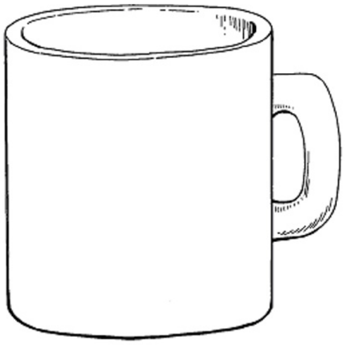

Figure 4.39

LO 2.3		LO 2.5	

Table 4.34

- Play Ladders and Steps with a friend.
- Use a dice.
- Climb up the ladder `[U+F023]`.
- Run down the steps ∃.

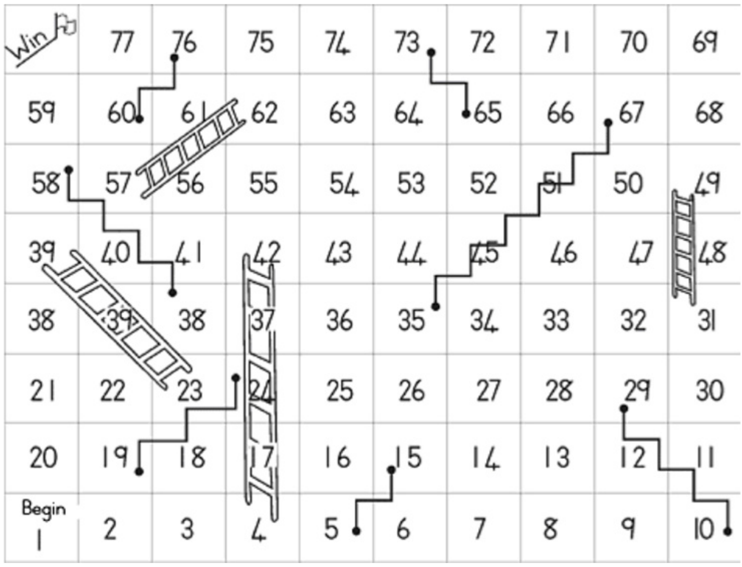

Figure 4.40

LO 1.1		LO 1.3	

Table 4.35

4.4.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assesseringstandaard 1.2: We know this when the learner counts forward and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100;

Assesseringstandaard 2.3: We know this when the learner creates own patterns;

Assesseringstandaard 2.5: We know this when the learner identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times.

4.5 Number Fun - Module 8 - 01[5]

4.5.1 MATHEMATICS

4.5.2 Number Fun

4.5.3 EDUCATOR SECTION

4.5.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Holidays
- Inclusively, Human rights and Social Justice: Everyone has a right to a job to earn money to be able to buy basics.

Activities are designed around “Holiday Time”. These consist of:

- number concept 1 to 19;
- counting activities in 2’s, 3’s, 4’s, 5’s and 10’s
- halving and doubling to 20;
- wordsums;
- sharing;
- symmetry; - left and right sides;
- directions using a map;
- bonds of 10;

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[5] This content is available online at <http://cnx.org/content/m31833/1.1/>.

- multiplication as repeated addition;
- graph to show the sale of books and
- speed tests.

4.5.5 LEARNERS SECTION

4.5.6 Content

- Write your telephone number here.

……………………………………………………………………………………………

- Use these numbers and the signs + , - and = and make up your own number sentences.

……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………

LO 1.8	

Table 4.36

- Complete.

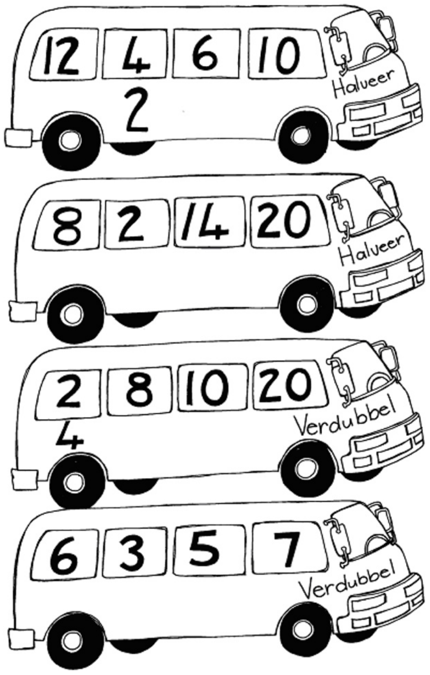

Figure 4.41

LO 1.9	

Table 4.37

- Complete the pattern on my handkerchief

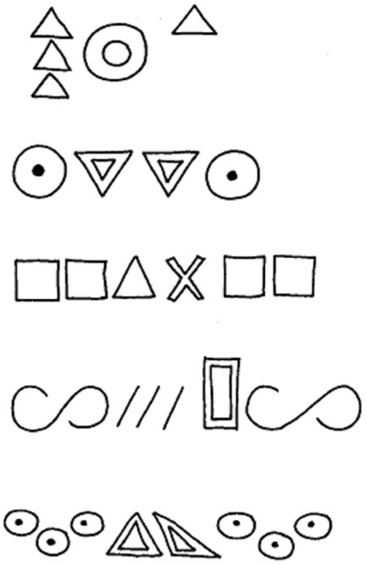

Figure 4.42

- Design your own patterns for your own handkerchief.

LO 2.1		LO 2.3	

Table 4.38

- Read the following weather guide.

Cape Town 20 °º
Vredendal 24 °ºº
Bloemfontein 1 8 °ºº
Durban 22 °ºº
George 1 5 °ºº

- Arrange the temperatures from the least to the most.

……………………………………………………………………………………………...

- Arrange the temperatures from the most to the least.

……

- Design weather signs for:

sunny snow
rainy cloudy

LO 1.4	

Table 4.39

- Help the frog to get to the pond.
- Count the blocks and move right or left, or down , or up.
- The first one has been done for you.

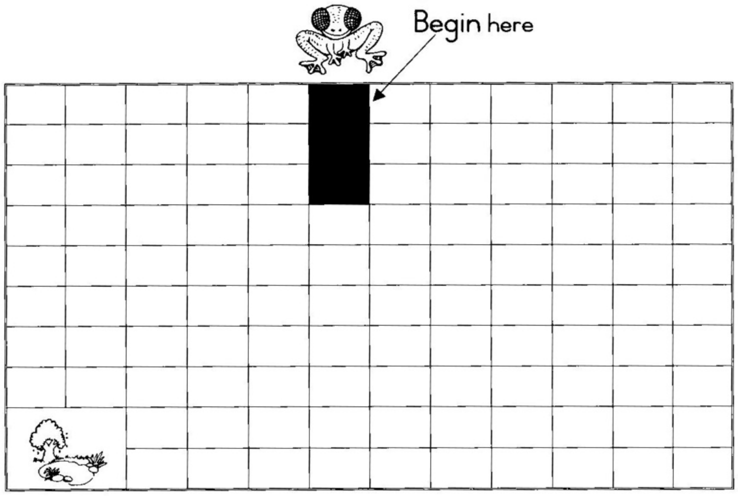

Figure 4.43

1. Jump 3 blocks down.
2. Jump 4 blocks right.
3. Jump 4 blocks down.
4. Jump 6 blocks left.
5. Jump 2 blocks up.
6. Jump 4 blocks right.
7. Jump 4 blocks down.
8. Jump 1 block left.
9. Jump 1 block down.
10. Jump …… blocks …… to dive into the pond.

LO 3.6	

Table 4.40

4.5.6.1 A map of our town

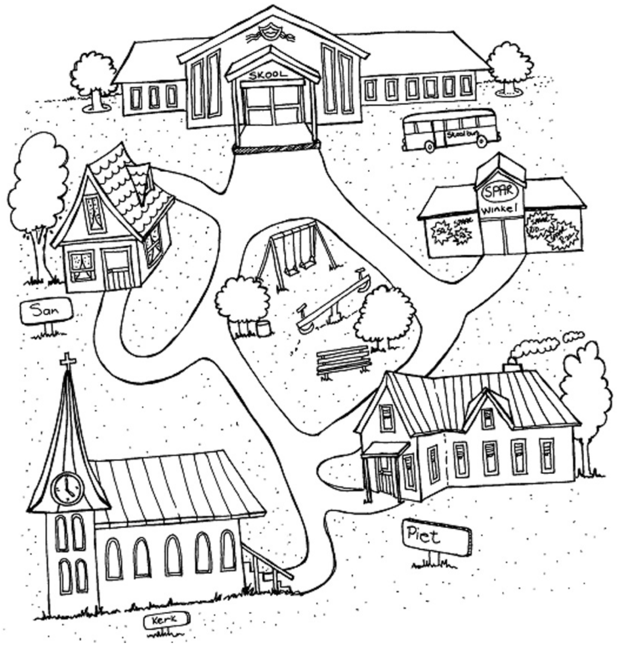

Figure 4.44

- Draw the shortest route for Peter to his school. Use red.
- Draw the shortest route for Sally to the shop. Use blue.
- Draw the shortest route from the school to the church. Use green..
- Tell one another where the shortest routes are.

LO 4.5	

Table 4.41

- Write or draw an envelope here.

Figure 4.45

- The shape of the envelope is a ……………….. (circle, square or rectangle).
- Count the letters in the word, e-n-v-e-l-o-p-e. ……………………… letters.
- Double the number of letters ……………………………………………………..
- Halve the number of letters ………………………………………………………..
- Which numbers come before the number of letters? …………………………
- Which numbers come after the number of letters? ……………………………..
- Group the number of letters into two's. ……………………………………… two's.

LO 1.4		LO 1.6		LO 1.9		LO 3.1	

Table 4.42

4.5.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assesseringstandaard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assesseringstandaard 2.1: We know this when the learner copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes);

Assesseringstandaard 2.3: We know this when the learner eie patrone skep.

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.1: We know this when the learner recognises, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures.

Assesseringstandaard 3.6: We know this when the learner follows directions (alone and/or as a member of a group or team) to move or place self within the classroom or three-dimensional objects in relation to each other.

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assesseringstandaard 4.5:Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures.

4.6 Number Fun - Module 8 - 02[6]

4.6.1 MATHEMATICS

4.6.2 Number Fun

4.6.3 EDUCATOR SECTION

4.6.4 Memorandum

INTRODUCTION

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3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Holidays
- Inclusively, Human rights and Social Justice: Everyone has a right to a job to earn money to be able to buy basics.

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[6] This content is available online at <http://cnx.org/content/m31836/1.1/>.

Activities are designed around “Holiday Time”. These consist of:

- number concept 1 to 19;
- counting activities in 2’s, 3’s, 4’s, 5’s and 10’s
- halving and doubling to 20;
- wordsums;
- sharing;
- symmetry; - left and right sides;
- directions using a map;
- bonds of 10;
- multiplication as repeated addition;
- graph to show the sale of books and
- speed tests.

4.6.5 LEARNERS SECTION

4.6.6 Content

4.6.6.1 The shops are having a sale

- Draw what you would like to buy.

R10	R10
R10	R10

Table 4.43

- How much money will you need? R ……………………………………………..
- The shop gives you a further discount of R5. You only pay R ………………...
- Draw R5 in different coins.

LO 1.5	

Table 4.44

- Exchange these coins for smaller coins.

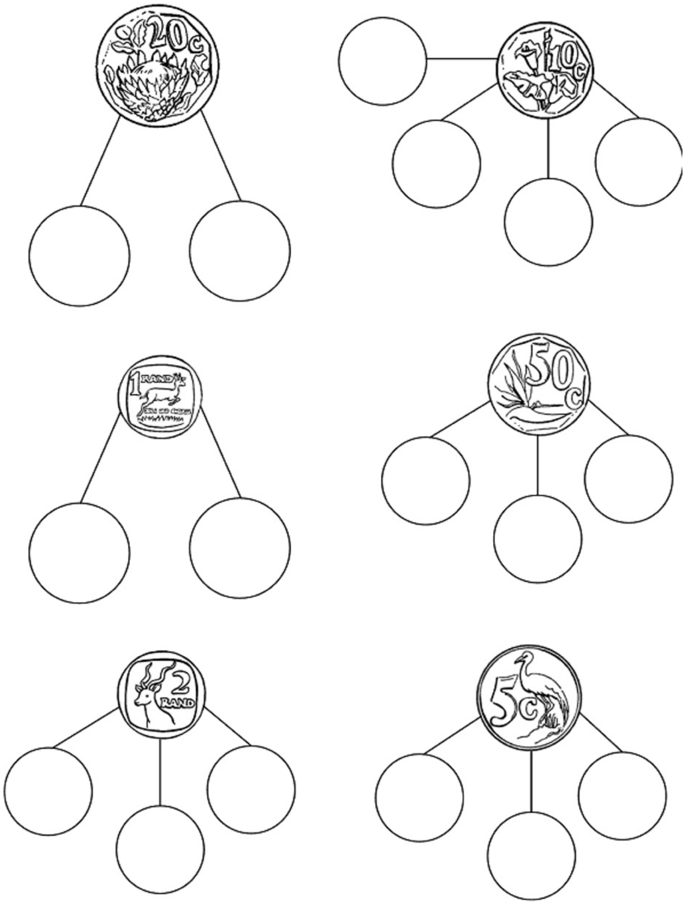

Figure 4.46

LO 1.5	

Table 4.45

- Estimate (guess) how many bottles of paint are on the shelf.
- My guess is ………………………………….. bottles.
- Count the bottles.

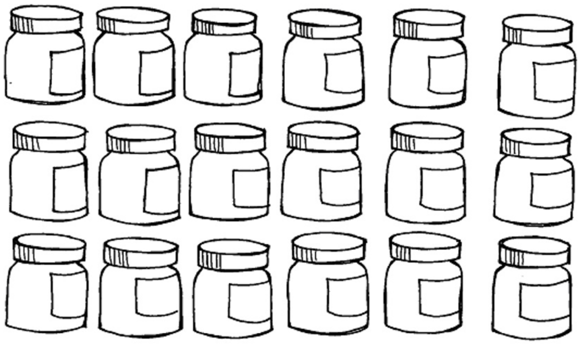

Figure 4.47

- There are ……………………………………... bottles.
- One less:………………………………………
- One more:…………………………………………
- Two less:……………………………………..
- Two more:…………………………………………..
- Ten less: ………………………………………
- Complete the number line.

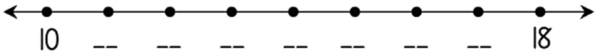

Figure 4.48

LO 1.1		LO 1.7		LO 1.9	

Table 4.46

4.6.6.2 Switch on the lights

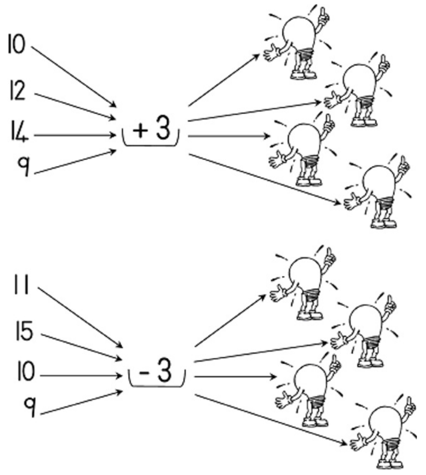

Figure 4.49

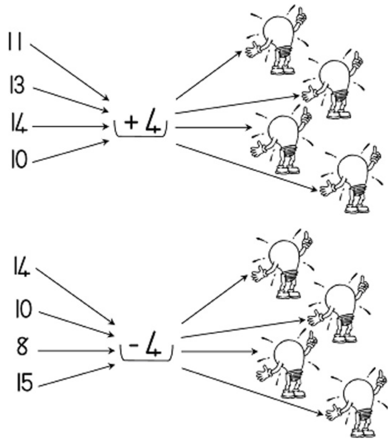

Figure 4.50

LO 1.7		LO 1.8	

Table 4.47

- Count the presents.

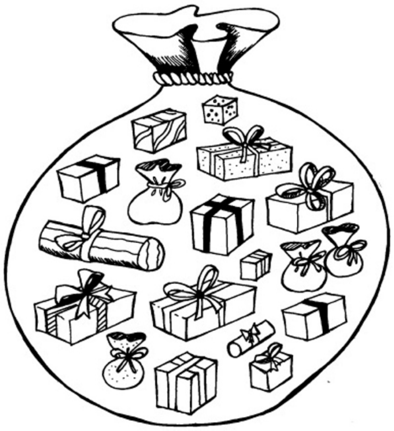

Figure 4.51

- There are ……………………………………….eight presents.
- Write the number and number name again………………………………………………………… 18 eighteen
- One more than 18 ………………………………………………………………
- One less than 18…………………………………………………………...
- Draw 18 bows.

LO 1.1		LO 1.3	

Table 4.48

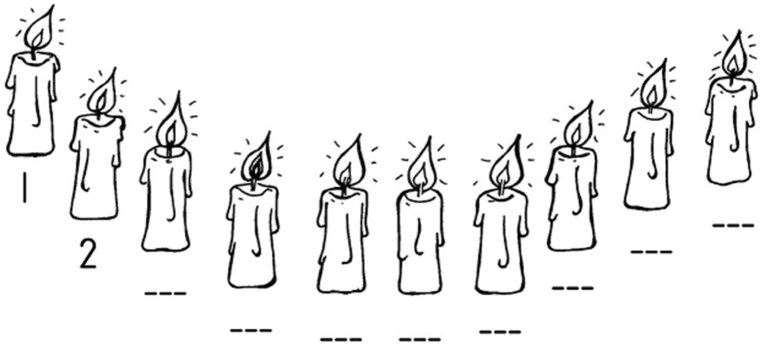

Figure 4.52

- There are ………………………………………….. candles.
- Complete the number sentences.

7 + ... = 10
5 + ... = 10
4 + ... = 10
3 + ... = 10
8 + ... = 10
1 + ... = 10
2 + ... = 10
10 - 3 = ...
10 - 9 = ...
10 - 2 = ...
10 - 5 = ...
10 - 7 = ...
10 - 1 = ...
10 - 4 = ...

LO 1.1		LO 1.8	

Table 4.49

- I want to decorate each room with bells.
- Draw the bells.

2 in each corner bells.	4 in each corner bells.
3 in each corner bells.	5 in each corner bells.
	Complete:2 + 2 + 2 + 2 = .3 + 3 + 3 = .4 + 4 + 4 = .
1 in each corner bells.	

Table 4.50

LO 1.7	

Table 4.51

4.6.6.3 Read and match

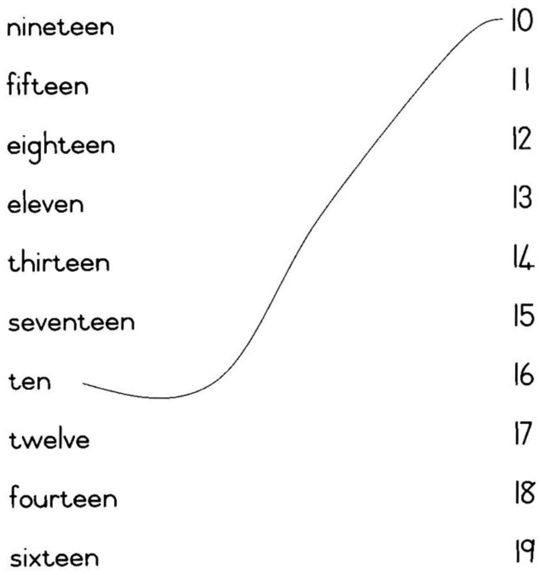

Figure 4.53

- Complete.

2, 4, 6, ..., ..., ..., ..., ..., ..., ..., ...
10, 20, ..., ..., ..., ..., ..., ..., ..., ...

LO 1.3		LO 2.2	

Table 4.52

4.6.7 Assessment

***Learning Outcome 1*:NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100.

4.7 Number Fun - Module 8 - 03[7]

4.7.1 MATHEMATICS

4.7.2 Number Fun

4.7.3 EDUCATOR SECTION

4.7.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Holidays
- Inclusively, Human rights and Social Justice: Everyone has a right to a job to earn money to be able to buy basics.

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[7] This content is available online at <http://cnx.org/content/m31838/1.1/>.

Activities are designed around “Holiday Time”. These consist of:

- number concept 1 to 19;
- counting activities in 2’s, 3’s, 4’s, 5’s and 10’s
- halving and doubling to 20;
- wordsums;
- sharing;
- symmetry; - left and right sides;
- directions using a map;
- bonds of 10;
- multiplication as repeated addition;
- graph to show the sale of books and
- speed tests.

4.7.5 LEARNERS SECTION

4.7.6 Content

4.7.6.1 Books on the shelf in the shop

- Count.

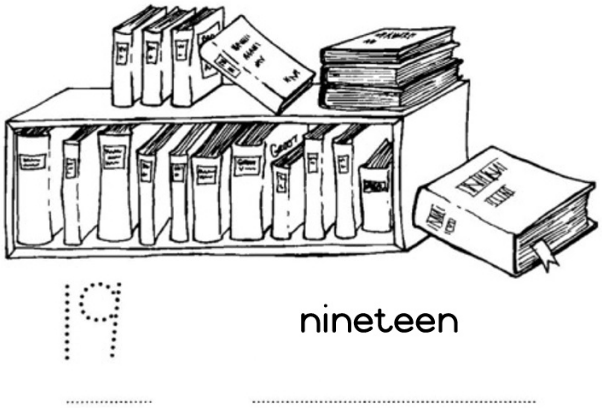


Figure 4.54

- Draw.

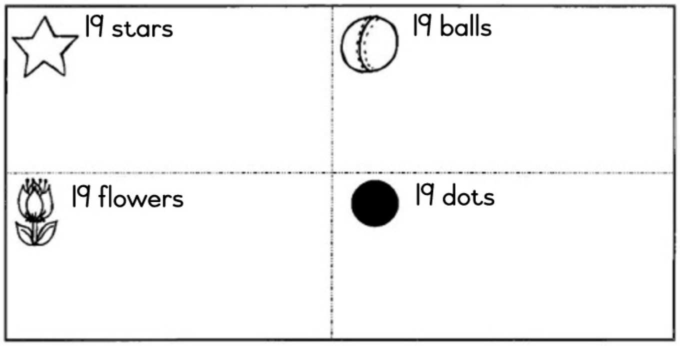


Figure 4.55

LO 1.1		LO 1.3	

Table 4.53

4.7.6.2 We visit the bookshop

- These books are all on sale.
- Each book is marked R5.

1. Marco buys 3 books. He pays R ……………………………………………………..

2. Sally buys 4 books. She pays R ………………………………………………………

3. Jim has R25. How many books can he buy? …………………..books.

4. Rob has R20. He may only spend half on books. How many books can he buy? books..……………………….books.

5. Mary has R30. She buys 4 books. She has R ………………………left over..

6. Sam has R50. He buys 2 books for his sister, 2 books for his brother, and 2 books for himself. How much change will he get? He will get R ………….. change.

7. How many books must the shop sell to make R100?

Count: 5 + 5 + 5 + 5……………………………………………...

LO 1.5	

Table 4.54

- Complete the graph.
- Answer the questions.

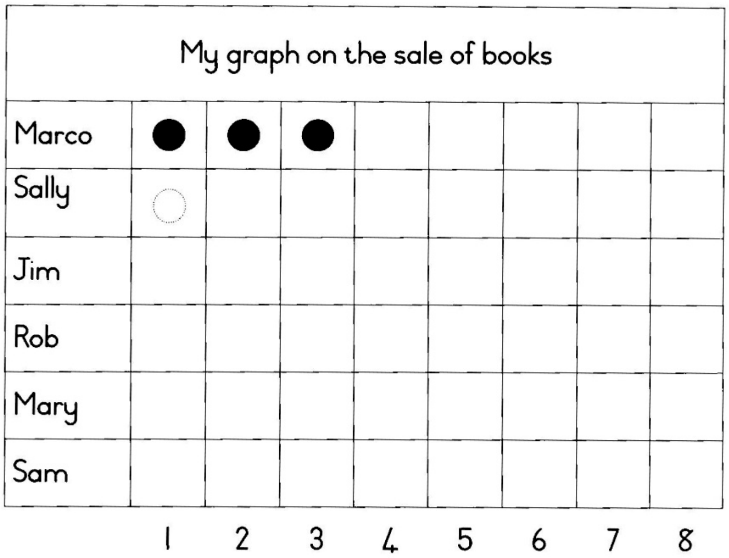


Figure 4.56

LO 5.5	

Table 4.55

- Complete the numbers on the number lines.
- Complete the number sentences.

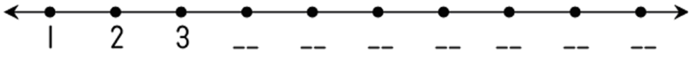


Figure 4.57

$8 + 1 - 2 =$
$4 + 4 - 1 =$
$3 + 2 + 2 =$
$7 - 1 - 1 =$
$2 + 2 - 3 =$
$3 + 2 - 4 =$
$5 + 3 - 4 =$
$7 - 4 - 3 =$

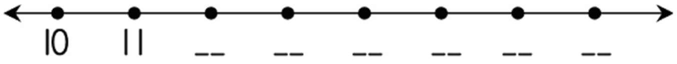


Figure 4.58

10 + 6 + 1 =
10 + 3 + 3 =
10 + 7 + 0 =
10 + 1 + 4 =
10 + 6 − 1 =
17 − 2 =
16 − 3 =
15 − 1 =
14 − 4 =
13 − 2 =

LO 1.7		LO 1.8		LO 1.9	

Table 4.56

- Discuss these activities.
- Mark the ones that take a long time, with 1.
- Mark the ones that take a short time, with 2.
- Colour in the pictures.

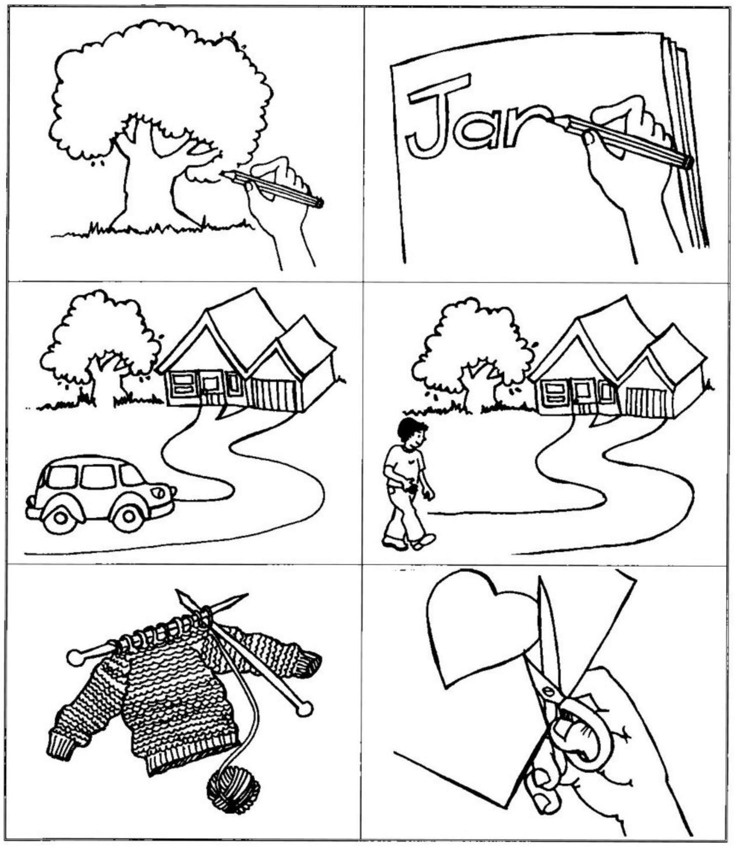
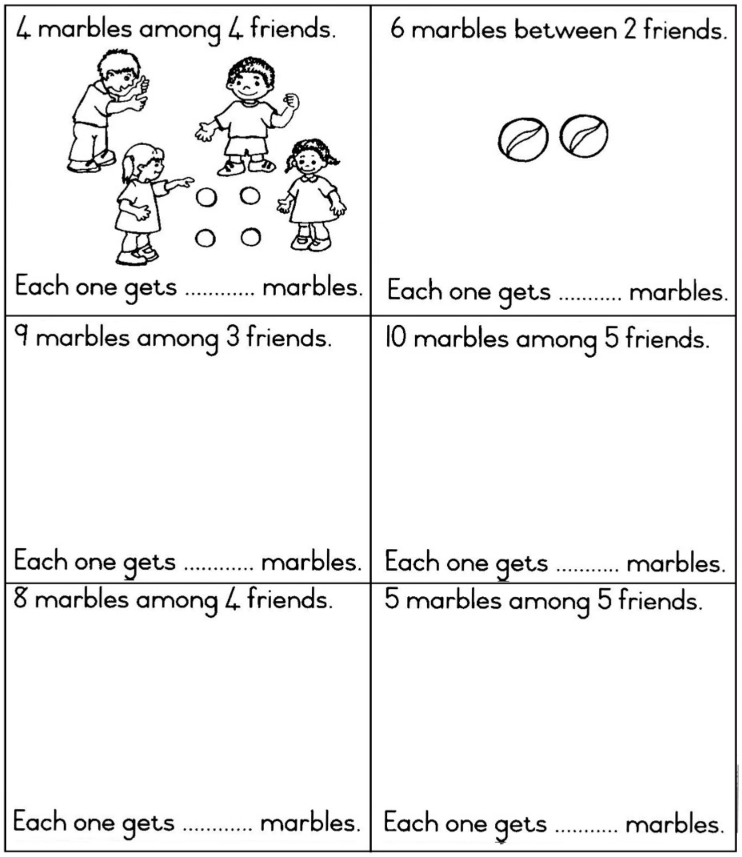


Figure 4.59

LO 4.2	

Table 4.57

- I share out my marbles among my friends like this.
- How many does each get?



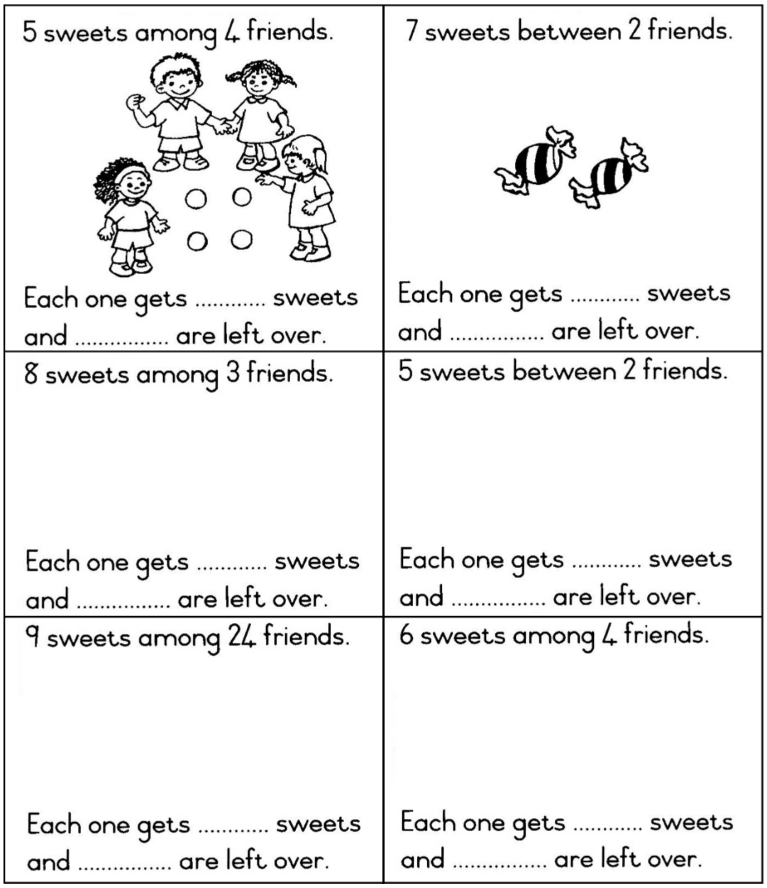
4 marbles among 4 friends. Each one gets .... marbles.	6 marbles between 2 friends. Each one gets .... marbles.
9 marbles among 3 friends. Each one gets .... marbles.	10 marbles among 5 friends. Each one gets .... marbles.
8 marbles among 4 friends. Each one gets .... marbles.	5 marbles among 5 friends. Each one gets .... marbles.

Figure 4.60

LO 1.6	

Table 4.58

- I share out my sweets among my friends.
- How many does each one get and how many sweets are left over?



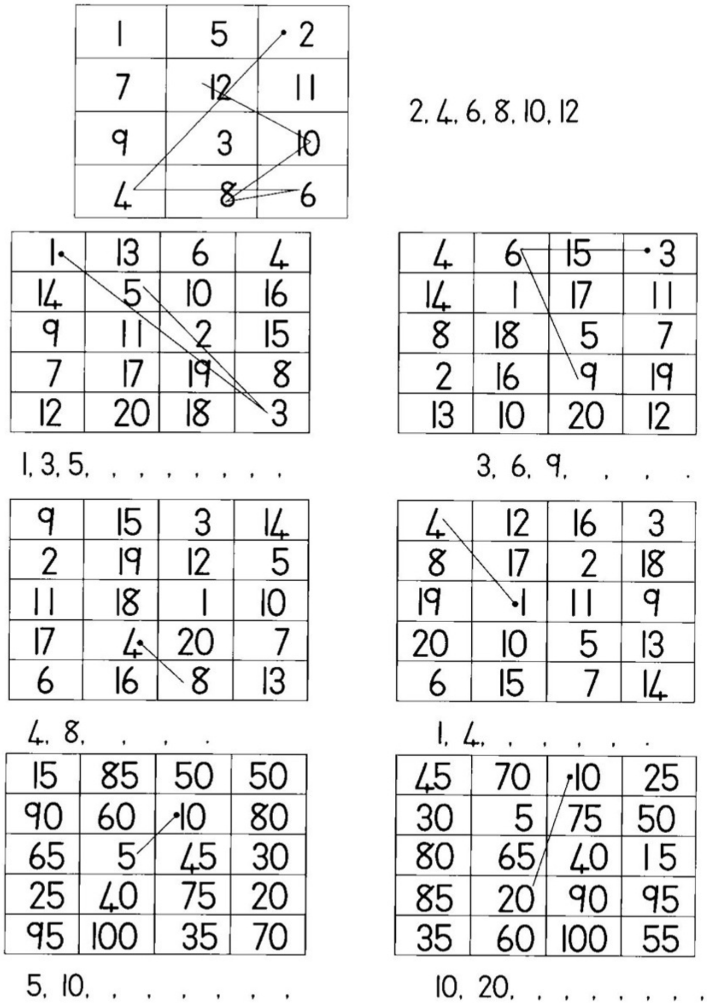
5 sweets among 4 friends. Each one gets .... sweets and .... are left over.	7 sweets between 2 friends. Each one gets .... sweets and .... are left over.
8 sweets among 3 friends. Each one gets .... sweets and .... are left over.	5 sweets between 2 friends. Each one gets .... sweets and .... are left over.
9 sweets among 24 friends. Each one gets .... sweets and .... are left over.	6 sweets among 4 friends. Each one gets .... sweets and .... are left over.

Figure 4.61

LO 1.6	

Table 4.59

- Complete the counting pattern and join the numbers, e.g. count in two's.



1	5	2
7	12	11
9	3	10
4	8	6

2, 4, 6, 8, 10, 12

1	13	6	4
14	5	10	16
9	11	2	15
7	17	19	8
12	20	18	3

1, 3, 5, ...

4	6	15	3
14	1	17	11
8	18	5	7
2	16	9	19
13	10	20	12

3, 6, 9, ...

9	15	3	14
2	19	12	5
11	18	1	10
17	4	20	7
6	16	8	13

4, 8, ...

4	12	16	3
8	17	2	18
19	1	11	9
20	10	5	13
6	15	7	14

1, 4, ...

15	85	50	50
90	60	10	80
65	5	45	30
25	40	75	20
95	100	35	70

5, 10, ...

45	70	10	25
30	5	75	50
80	65	40	15
85	20	90	95
35	60	100	55

10, 20, ...

Figure 4.62

LO 1.2		LO 2.2	

Table 4.60

4.7.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assesseringstandaard 1.2: We know this when the learner counts forward and backwards;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assesseringstandaard 1.6: We know this when the learner solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100.

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assesseringstandaard 4.2: We know this when the learner compares events in terms of the length of time they take (longer, shorter, faster, slower);

Learning Outcome 5:**DATA HANDLING:** The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.5: We know this when the learner constructs pictographs where stickers or stamps represent individual elements in a collection of objects.

4.8 Number Fun - Module 8 - 04[8]

4.8.1 MATHEMATICS

4.8.2 Number Fun

4.8.3 EDUCATOR SECTION

4.8.4 Memorandum

INTRODUCTION

The Grade 1 educator needs to determine whether the learners have attended a pre-primary class or not. For the learners who have not attended a pre-primary, Modules 1 and 2 may have to be adapted to include more activities so as to reinforce the vocabulary and concepts in these modules. For the learners who have attended pre-primary schools, Modules 1 and 2 will serve as revision exercises giving the educator a clear picture as to what they know.

TIME SCHEDULE

Two modules have been designed for each term. The educator may however find that the fast workers will complete the modules in less time than the slower workers. The educator should feel free to extend the number range for the learners who are ready for it. The minimum requirements for the slow learners are Modules 1 to 7.

Critical and developmental outcomes:

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[8] This content is available online at <http://cnx.org/content/m31841/1.1/>.

The learners must be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national, and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

- Integration of Themes: Holidays
- Inclusively, Human rights and Social Justice: Everyone has a right to a job to earn money to be able to buy basics.

Activities are designed around "Holiday Time". These consist of:

- number concept 1 to 19;
- counting activities in 2's, 3's, 4's, 5's and 10's
- halving and doubling to 20;
- wordsums;
- sharing;
- symmetry; - left and right sides;
- directions using a map;
- bonds of 10;
- multiplication as repeated addition;
- graph to show the sale of books and
- speed tests.

4.8.5 LEARNERS SECTION

4.8.6 Content

4.8.6.1 Symmetry

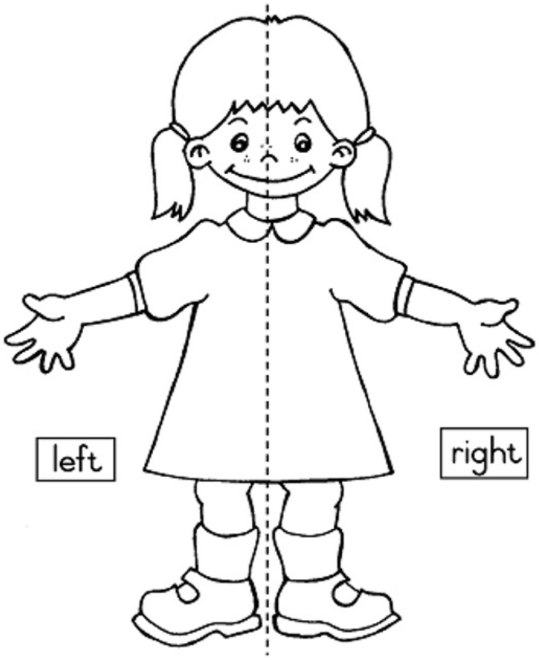


Figure 4.63

LO 3.5	

Table 4.61

- Discuss the similarities between the 2 halves (left half and right half) of your body. If the 2 halves are exactly the same we say they are symmetrical.
- Look around the room and find things that are symmetrical. Discuss these with one another.

LO 3.4	

Table 4.62

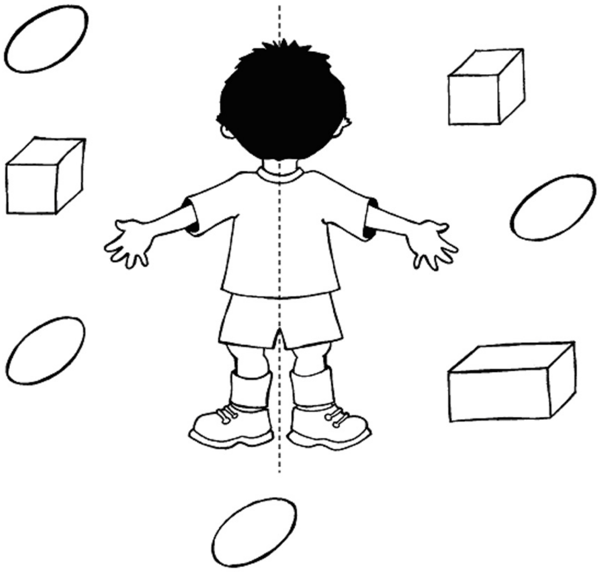


Figure 4.64

- Here is Peter.
- Mark his left side with l.
- Mark his right side with r.
- Colour the cube (block) to the left of Peter in red.
- Colour the sphere to the right of Peter in yellow.
- Colour the sphere behind Peter in green.
- Colour his left side in blue.

LO 3.4	

Table 4.63

- Complete the butterfly.
- Discuss whether the butterfly is symmetrical.

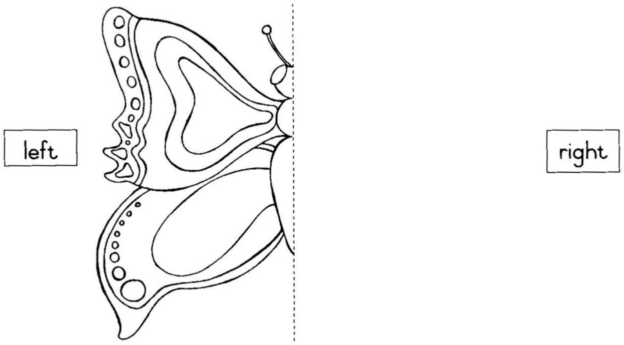


Figure 4.65

- Colour the shapes that are symmetrical.

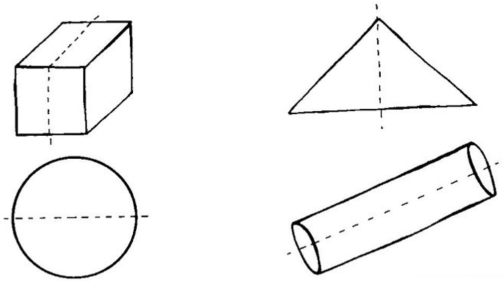


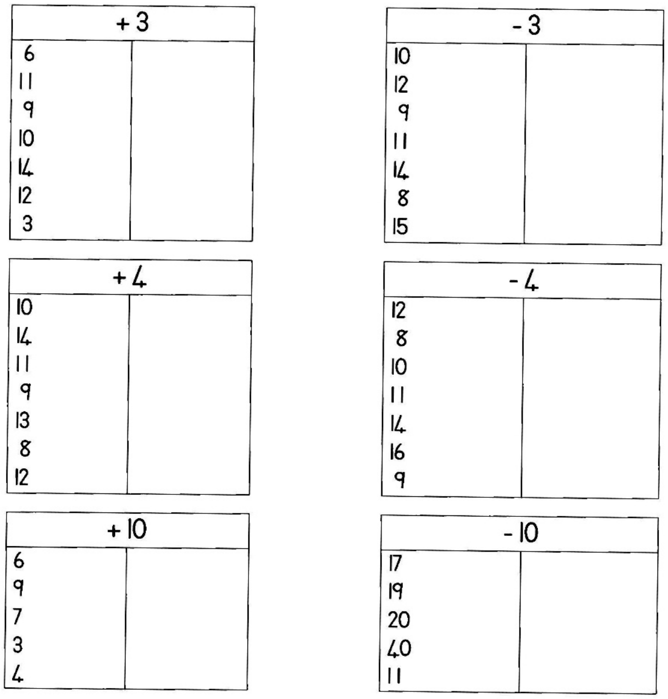
Figure 4.66

LO 3.4	

Table 4.64

4.8.6.2 A maths race

- Play with a friend.
- See who is the first to write in all the answers.
- Change papers and mark each other's sums.



+3	
6	
11	
9	
10	
14	
12	
3	

-3	
10	
12	
9	
11	
14	
8	
15	

+4	
10	
14	
11	
9	
13	
8	
12	

-4	
12	
8	
10	
11	
14	
16	
9	

+10	
6	
9	
7	
3	
4	

-10	
17	
19	
20	
40	
11	

Figure 4.67

LO 1.7	

Table 4.65

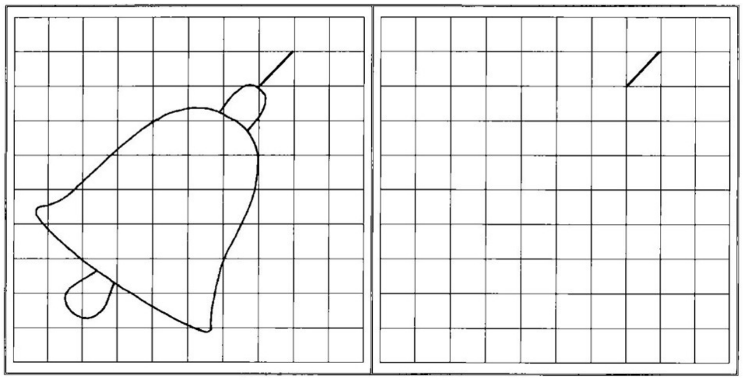


Figure 4.68

- Draw the bell again.
- Count how many squares did you use for the bell. ……………………... squares.
- Colour it neatly.

- Count.

2, ..., ..., ..., 10, ..., ..., ..., 18, ...

3, ..., ..., ..., 15, ..., ..., ..., ..., 3

4, ..., ..., ..., 20, ..., ..., 32, 36, ...

5, ..., ..., ..., 25, ..., ..., ..., 45 ....

LO 1.1		LO 2.2		LO 4.5	

Table 4.66

- Guess which shape is bigger? A or B.
- Count the squares in each shape to find out if you are right or wrong.
- Colour the shape that is bigger.

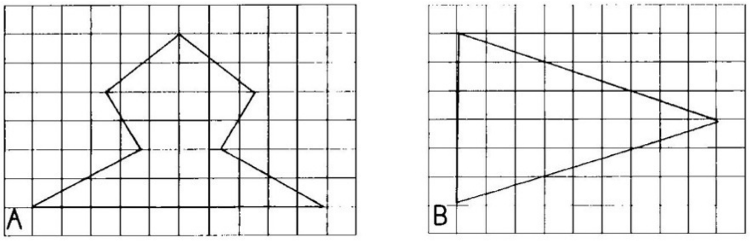


Figure 4.69

- I guess ……………………………………… is bigger.
- A = …………………………... squares. B = …………………………………… squares.
- I was ……………………………………….. (right or wrong).

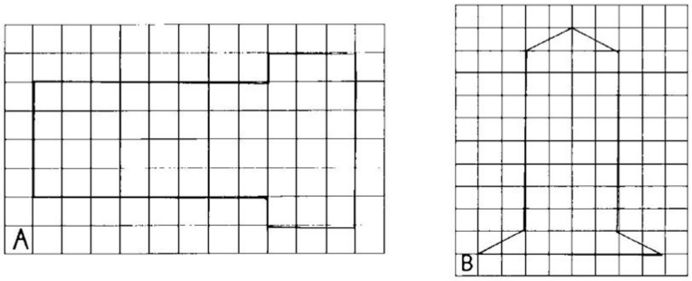


Figure 4.70

- I guess ………………………………………… is bigger.
- A = ………………………………….. squares. B = …………………………... squares.
- I was ……………………………………….. (right or wrong).

LO 3.2		LO 4.5	

Table 4.67

- Draw 20 stars on the tree.
- Write the name and number name.

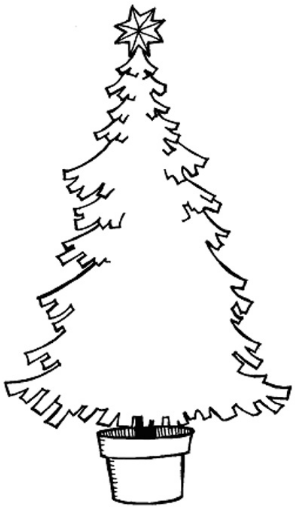


Figure 4.71

- …………………………………….. comes before 20.
- 20 is one more than ……………………………………..
- 20 is ten less than ……………………………………
- Double 20, ………………………………………..
- Halve 20, …………………………………………...

LO 1.1		LO 1.3		LO 1.4		LO 1.9	

Table 4.68

- Read, think and complete.

1 If I have 18 stars for 2 trees, I can hang ………………... stars on each tree.

2 I want to hang 12 stars on the tree but I only have 9 stars. I must get …………………………………………….. more stars.

3 There are 11 stars in one packet and 5 stars in the other packet. Altogether there are …………………………………………... stars.

4 One packet of stars cost R5. For 3 packets I will pay R…………………..

5 How much change will I get if I pay with R20? R……………….. change.

6 I counted 34 stars on the trees. 5 stars fell off. There are ………… stars left.

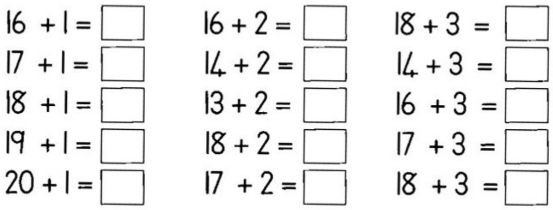
7 Count the stars:

9 + 2 + 3 + 4 = ……………………………………………..

LO 1.5		LO 1.7	

Table 4.69

- Complete.

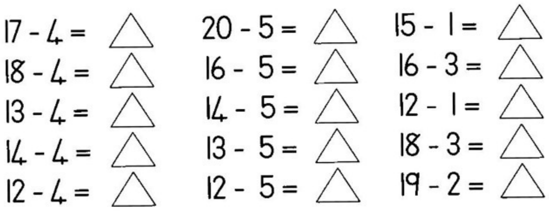


16 + 1 = □
17 + 1 = □
18 + 1 = □
19 + 1 = □
20 + 1 = □
16 + 2 = □
14 + 2 = □
13 + 2 = □
18 + 2 = □
17 + 2 = □
18 + 3 = □
14 + 3 = □
16 + 3 = □
17 + 3 = □
18 + 3 = □

Figure 4.72

- Ask a friend to mark your test.

_ _ _ _ _/15



17 - 4 = △
18 - 4 = △
13 - 4 = △
14 - 4 = △
12 - 4 = △
20 - 5 = △
16 - 5 = △
14 - 5 = △
13 - 5 = △
12 - 5 = △
15 - 1 = △
16 - 3 = △
12 - 1 = △
18 - 3 = △
19 - 2 = △

Figure 4.73

- Ask another friend to mark your test.

_ _ _ _ _/15

- Are you (Choose one and colour in).

Sad?
Happy?
Very happy?

Figure 4.74

LO 1.7		LO 1.1.1	

Table 4.70

- Complete the answers.
- If the answer is more than 20, colour the shape green.
- If the answer is less than 20, colour the shape yellow
- Draw the face of the animal.

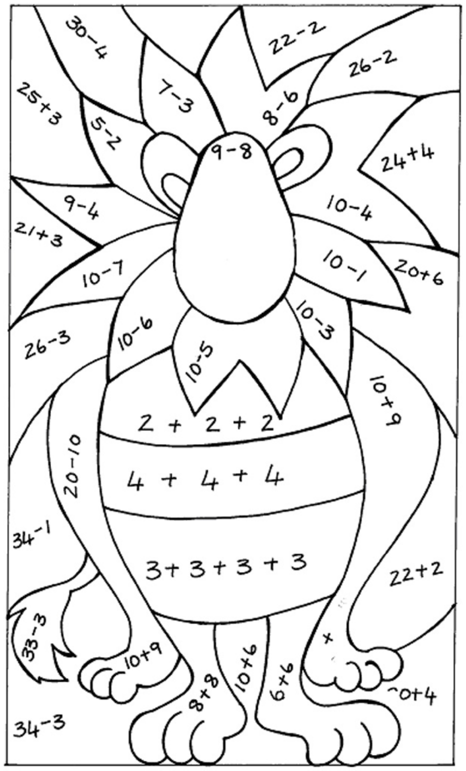


Figure 4.75

LO 1.7		LO 1.8	

Table 4.71

4.8.7 Assessment

Learning Outcome 1:**NUMBERS, OPERATIONS AND RELATIONSHIPS:** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standard 1.1: We know this when the learner counts to at least 34 everyday objects reliably;

Assessment Standard 1.3: We know this when the learner knows and reads number symbols form 1 to at least 100 and writes number names from 1 to at least 34;

Assessment Standard 1.4: We know this when the learner orders, describes and compares whole numbers to at least 2-digit numbers;

Assessment Standard 1.5: We know this when the learner solves money problems involving totals and change in rands and cents;

Assessment Standard 1.7: We know this when the learner can perform calculations, using appropriate symbols, to solve problems;

Assessment Standard 1.8: We know this when the learner performs mental calculations involving addition and subtraction for numbers to at least 10;

Assessment Standard 1.9: We know this when the learner uses techniques;

Assessment Standard 1.11: We know this when the learner checks the solution given to problems by peers.

Learning Outcome 2:**PATTERNS, FUNCTIONS AND ALGEBRA:** The learner will be able to recognise, describe and represent patterns and relationships, as well as to solve problems using algebraic language and skills.

Assessment Standard 2.2: We know this when the learner copies and extends simple number sequences to at least 100.

Learning Outcome 3:**SPACE AND SHAPE (GEOMETRY):** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three-dimensional objects in a variety of orientations and positions.

Assessment Standard 3.2: We know this when the learner describes, sorts and compares physical two-dimensional shapes and three-dimensional objects;

Assessment Standard 3.4: We know this when the learner recognises symmetry in self and own environment (with focus on 'left', right', 'front' and 'back');

Assessment Standard 3.5: We know this when the learner describes one three-dimensional object in relation to another (e.g. 'in front' or 'behind');

Learning Outcome 4:**MEASUREMENT:** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.5: We know this when the learner estimates, measures, compares and orders three-dimensional objects using non-standard measures.

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